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Contaminated Land Phase One Desk Study for proposed residential dwelling on land at Red Doles Lane, Leeds Road, Huddersfield, HD2 1YF.

Prepared for

ADP Architecture Design,
The Old Police Station,
16 Bridge Lane,
Holmfirth,
HD9 7AN.

October 2024

Summary

This report consists of a phase one contaminated land desk study produced in support of planning application for a commercial storage building on land at Red Doles Lane, Leeds Road, Huddersfield, HD2 1YF.

Following the site walkover and review of the available information it has been concluded that there is unlikely to be any contamination either on or off site which presents a significant risk of significant harm to the identified receptors and the site is safe and suitable for the intended use.

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

Contents

Introduction

Martin Environmental Solutions has been commissioned, to carry out a phase one contaminated land desk study report in relation to a proposed commercial storage building on land at Red Doles Lane, Leeds Road, Huddersfield, HD2 1YF.

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 Land Contamination Risk Management (LCRM).

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: Red Doles Lane, Leeds Road, Huddersfield, HD2 1YF.

Grid reference: 415336, 418151

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

Current Site use:

The site currently consists of a concrete service yard servicing the wider industrial site. Industrial units surround the site. Beyond these there is a canal to the west with housing beyond, housing to the east with a river beyond.

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
1854	The site forms part of larger agricultural fields.	The area is predominantly agricultural. The canal runs to the northwest ~120m away and beyond a railway and sidings 250m. to the southeast is the River Colne runs NE-SW, 450m away. Bredley mill lies beyond the river. Huddersfield is located to the southwest beyond 750m away from the site.
1892-93	No Change	Field Woollen Mills lies to the north 100m away, dwellings area located along the road to the south and a Dye Works and Arabain Corn Mill s 250m to the southwest.
1905-07	No Change	A cricket ground has been built between the site and the Dye works. Tanks are shown at Field Mill to the north.
1918	No Change	A reservoir is shown in the centre of field mill 120m to the northeast with another tank to the east of the mill. A mill race is shown from the canal to Field Mill.
1931-32	No change	The mills to the south are shown as discussed, the reservoir is no longer identified on the map. More residential housing is shown along the main road and to the east a ne estate is shown. An engineering works is shown 400m to the east and allotments are located behind the houses on the main road to the east. A brick works is shown on the far side of the canal and before the railway line. A tramway runs down the main road.
1938	No Change	No significant changes
1948	No Change	No significant changes

1956-60	No Change	A day nursery has been built to the southeast 50m away. A garage is shown at the end of the housing terrace 110m to the southeast Works and a garage are shown on the far side of the main road 200m away. These buildings were present on the 1930's mapping but not labelled. Two works units are present to the west of Field Mill, approx. 150m from north of the site.
1966	No Change	No significant changes, the brick works is no longer shown.
1975	No Change	Further works units have been developed to the north and east of the site. the site to the north resembles a concrete batching site, which is still present today.
1986-88	No change	A depot is shown adjacent to the site to the northeast, with further units to the east a label of wholesale markets covers these.
1993-95	To buildings are present on site from 1995	To the southeast a large industrial building has been erected by 1995, with another to the immediate south. The nursery site is no longer shown. An electricity substation is shown to the south of this building.
2001-03	No Change	No significant changes
2010	No Change	No significant changes
2024	No Change	No significant changes
Aerial photos	Aerial pictures of the two buildings show small single storey structures. By 2009 these have been replaced with the larger building to the north and in place today with the remaining area shown as an asphalt carpark.	The concrete works are shown to the north and to the west a builders storage yard. No significant changes over the last 24 years.

Regulatory Information

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

22 permitted activities that have been identified within 500m of the site as defined in the Environmental Permitting (England and Wales) Regulations 2016 or previous legislation. These include ten Part A1 processes and 12 Part A2/B processes. The Part 1 sites cover three installations the nearest 127m northeast of the site at United Anodisers Ltd for the surface treatment of metals and associated processes. The second 284m southwest at dyeworks factory and the third 306m southwest also at the Dyeworks factory.

Part A1/B processes include eight historical processes, of the current processes the nearest is the concrete works 68m north of the site, a roadstone coating site 252m northeast, a foundry 462m east and a metal process 485m southwest.

ICI chemicals has a radioactive substances authorisation for a site 406m northeast, and two COMAH sites are identified 467m southeast at Arch Timber Protection Ltd and 485m east at Syngenta Ltd.

Six pollution incidents have been identified in the surrounding area. The nearest 283m southwest in August 2001 involving organic chemical products having a minor impact on land and water, 374m west in September 2005 biodegradable wastes and construction and asbestos waste had a significant impact on the land, July 2003 saw a construction waste incident have a minor impact on land and water 379m southeast and in August 2001 a sewage incident had a minor impact on water.

Four discharge consents are reported the nearest 123m northwest at RMC Huddersfield Ltd (concrete works) into Canker Dyke, and three sewage discharges located 195m north, 399m south and 459m east into the River Colne.

The above identified sites are unlikely to impact on the development site given the age and locations.

No active landfill site records have been found in the area. A historic landfill record has been identified 47m southwest of the site at Red Doles Lock treating liquid sludge, this is at the building merchants and skip hire site (Myers Group Ltd). The site is also a material recycling facility. 90m west, British Waterways held a license between 1988-

92 for industrial liquid sludge. 146m west the County Council held a license at Emerald Street Brick and Tile Landfill Site accepting industrial, commercial, and household waste.

Other waste sites identified include the Myers site 27m to the southwest. Champmans Casks and Drums recycling site 189m north Readymix household, commercial and industrial waste transfer station 224m southwest and Emerald Street household waste and composting facility 442m southwest.

29 waste exemptions have been identified. The nearest are 45m northeast for the treating of waste, preparatory treatments and storage, 57m north at aggregate industries for the storage of waste, 68m north and 86m west again for storage of waste, 96m northeast and 156m north for the treatment and storage of waste. 333m northwest for the sorting and denaturing of drugs, 400m west for the storage of waste, 400m & 435m east use of waste in construction.

Current potentially contaminative site identified in the area include:

The site 68m west includes concrete batching, and an asphalt site.

Electricity sub-station 88m southeast, 98m & 198m east, 147m northeast, 225m & 240m south

Works 106m northeast, 221m east, 226m northwest

Publishing goods 116m east,

Vehicle repair and servicing 117m southeast

Petrol station 119m southeast.

A pallet company 127m north

A chimney 140m northeast

Recycling site 143m north

United Anodisers 161m northeast

A crane 170m east, 243m east

Various retail units 179m, 188m, southeast 117m & 186m northeast

Telecommunications mast 249m north.

These is 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:

Works to the 29m northeast, 130m north, 154m east, 185m southeast

The nursery 38m to the southeast in 1965

Mills located 89m northeast 1889-1988

Tanks 133m northeast 1905, 1948-5

Mill 141m northeast, 218 m southwest disused in 1938

Brick works 175m west

Ground workings 193m west

Tramway sidings 198m west in 1938 at the brick works 222m west

Dye works 225m southwest in 1889-1905

A reuse heap 225m north

Geology and Hydrogeology

Information from the British Geology Survey 1:50,000 mapping identifies the bedrock in the area as Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone, overlaid by Alluvium deposits of clay, sand and gravel.

On site boreholes confirm a shallow layer of made ground to no more than 1.3m followed by clay and then sand and gravel with stone at 2.4m.

The information obtained on the hydrogeology of the area identifies the site as having a Secondary A aquifer in both the bedrock and superficial layers 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.

50 groundwater abstraction licenses have been identified; the nearest active site is 30m southwest at the dyeing company. The next nearest active sites are 24 boreholes at Syngenta Ltd/AstraZeneca Ltd 1490m to 1659m east. The final two active sites are W T Johnson & Sons, 1952m south.

23 surface water abstraction licenses are identified, two active sites from the canal for the canal and river trust 330m southwest and one 604m southwest. Syngenta Ltd have another ten ranging from 972m-1631m northeast. The final active site is 1935m south again linked to the canal and rivers trust.

The site is not located within a Source Protection Zone.

The Groundwater vulnerability is described as high in all geological layers.

Hydrology

The nearest watercourses are the canal 136m to the northwest and the river ~450m to the southeast.

The site is within a zone 2 floodplain.

Environmental Sensitivity

The only environmental sensitive sites identified are a local nature reserve 1712m east of the site at Dalton Bank, the South and West Yorkshire Green Belt located 1467m west of the site and five ancient woodlands located 1581m north at Lower Fell Greave, 1609m, 1720m north and 1868m northwest.

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.

Additional natural hazards have been identified & the site has very low/negligible risk of shrink swell, running sand, but with high risk of compressible ground.

Coal mining activities have been identified 261m west of the site at Fartown Colliery. The mine closed in 1869, operating for 14 years, properties are now located over the shaft. The interactive coal authority map suggests a shaft depth of 30m and the shaft has been treated. The site is not in an area of probable underground coal workings, it is located within a coal mining area as identified by the Coal Authority. The risk of mine gas is considered minimal.

Site Walkover

A site walkover was undertaken on the 14th October 2024 and confirmed much of what had already been identified from the information obtained on the site. The photographs in Appendix 3 provide some indication of the current layout and condition of the site.

The site is accessed from the east off Red Doles Lane and the wider site consists of two buildings. A large industrial one to the front and a smaller one currently used as a gym to the rear. The proposed development will mirror this building. Surrounding the buildings is a level asphalt apron.

The site has been lifted and levelled during its constructed as can be seen to the edge of the apron. Although the adjacent site is lightly higher.

No signs of contamination, discoloration or olfactory evidence, dead or dying vegetation were seen during the walkover.

The current owners are unaware of any issues on site which could have led to contamination.

Conclusions

Potential Contaminants

Following a review of the information gathered on the history of the site and the surrounding area and following have been identified;

- possible made ground on-site under the existing asphalt apron
- registered historic landfill sites within 250m of the development
- historic reservoirs within 250m of the site
- No landfill operations have been identified from historic mapping and aerial photographs for the last 25 years.

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.

Neighbouring sites

If present on site contaminates have the potential to migrate to neighbouring sites through ground water or air blown transfer.

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	Probability	Consequence	Risk
1	Run off and seepage into groundwater from any spillages	Made ground	Watercourse/ Environment	Low likelihood	Mild	Low
2	Migration of gases into the building.	Infilled / historic landfills	Future users	Unlikely	Medium	Low
3	Inhalation of gases/ vapours outside	Infilled / historic landfills	Construction workers/future users	Unlikely	Mild	Very Low
4	Inhalation of fine particles	made ground	Construction workers	Low likelihood	Minor	Very low
5	Direct ingestion of contaminated soil	made ground	Construction workers	Low likelihood	Minor	Very low
6	In-direct ingestion of contaminated soil	made ground	Future users	Unlikely	Minor	Very low
7	Absorption via direct dermal contact with contaminated soil	made ground	Construction workers	Unlikely	Minor	Very low

		CONSEQUENCE			
		Severe	Medium	Mild	Minor
PROBABILITY	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate / Low Risk
	Likely	High Risk	Moderate Risk	Moderate / Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate / Low Risk	Low Risk	Very low Risk
	Unlikely	Moderate / Low Risk	Low Risk	Very low Risk	Very low Risk

Recommendations

As a result of the investigation into the historical use of the site and surrounding area no sources of contamination have been identified on or off site which present a significant possibility of significant harm to the any of the identified receptors, the site is therefore considered to be suitable for the intended use.

It is further recommended that a watching brief is maintained throughout the construction of the new building 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

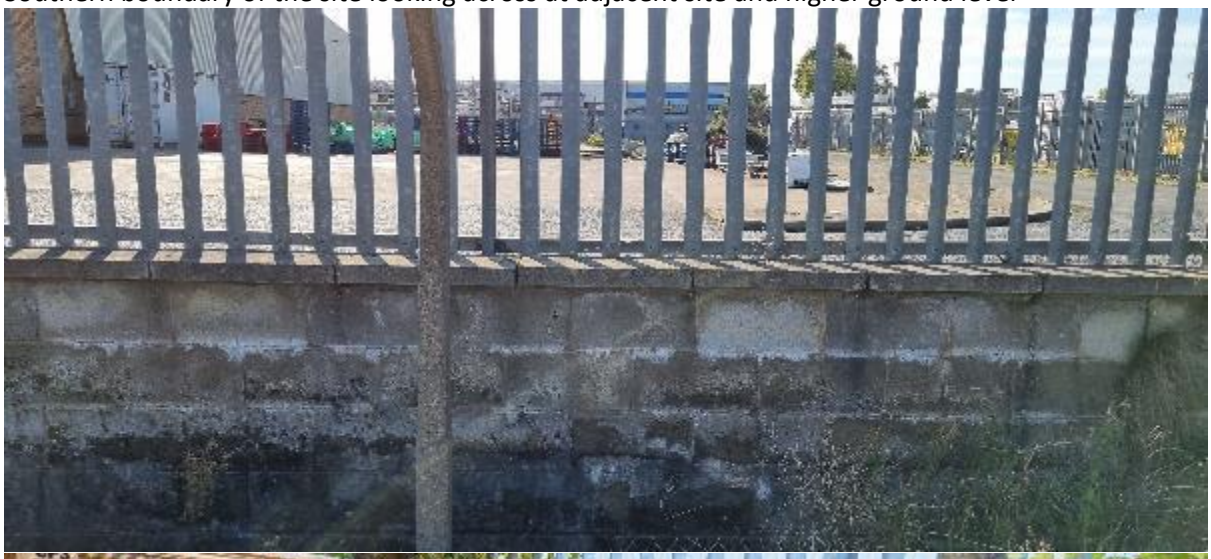
Appendix 3 – Site Walkover Photographs

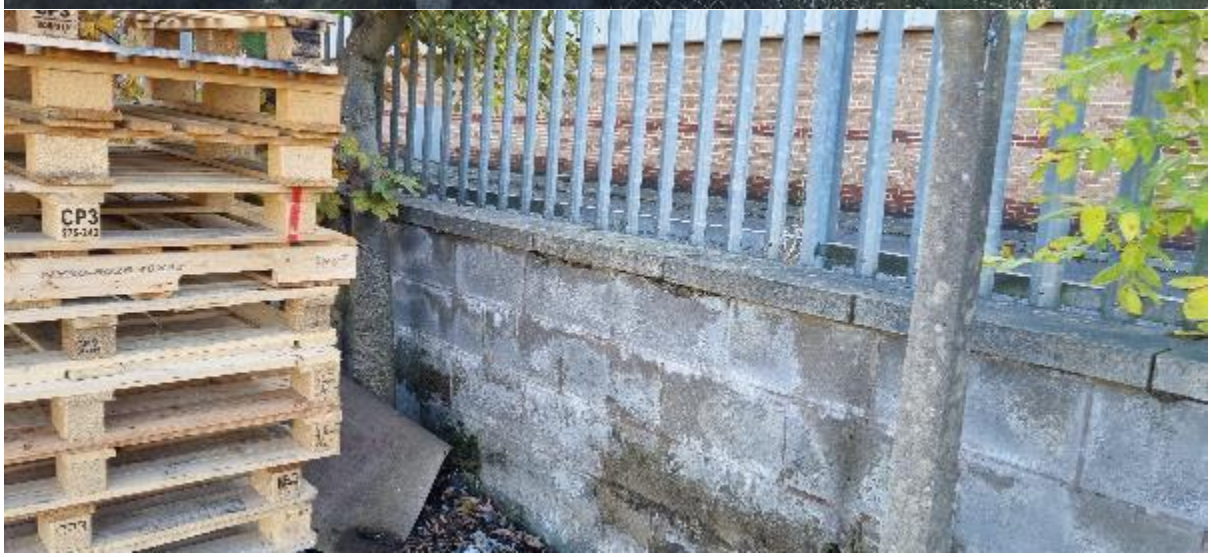
Southwest corner of the yard

Northern boundary of the adjacent building looking east

Southwest corner looking to northeast corner across the site

Southern boundary of the site looking across at adjacent site and higher ground level



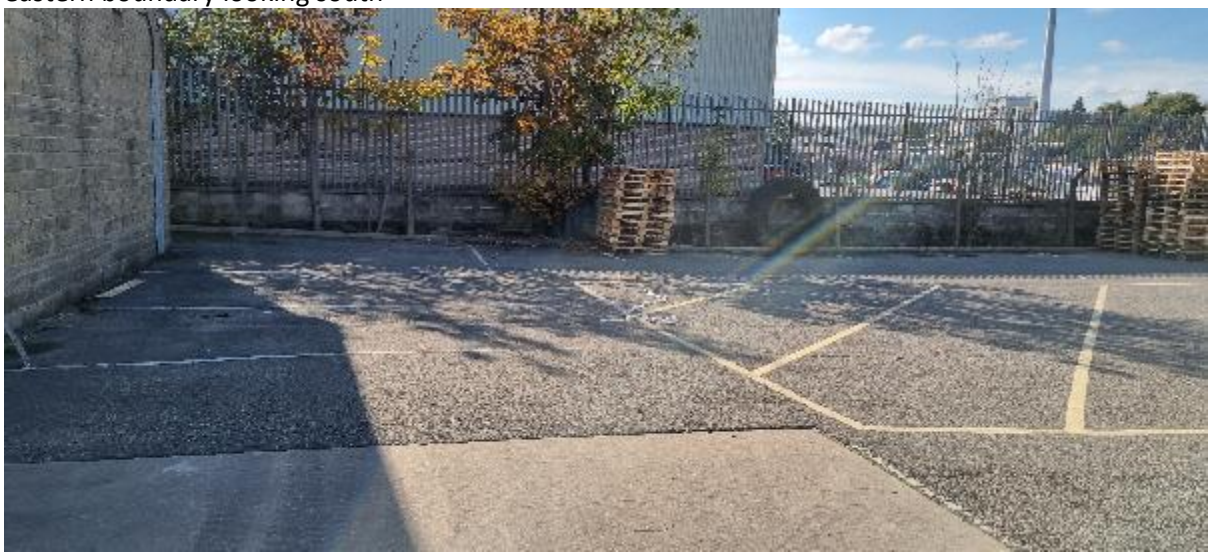


eastern boundary looking north

southern boundary looking west.

northern boundary looking west

eastern boundary looking south



Appendix 4 – Conceptual Model Risk Assessment

A Preliminary Risk Assessment is usually undertaken as part of a desk study, outlines potential risks posed by potential contamination to all receptors by defining plausible "pollution linkages" and developing a preliminary conceptual model (PCM).

The purpose of this model is to define all possible complete pollution linkages, where the requisite source – pathway – target elements are present, and these elements being defined as:

- a contaminant (source) is a hazardous substance or agent, present at levels that have the potential to cause harm or damage a receptor
- a pathway is the means by or through which a contaminant comes into contact with, or otherwise affects, the receptor
- a receptor (target) is an entity (human being, aquatic environment, flora and fauna etc) that is vulnerable to the adverse effects of the contaminant

This relationship is termed a "pollution linkage". It should be recognised that for a health or environmental risk to exist, all three elements of the relationship or linkage must be present, i.e.

- if there is no contaminant, or contaminant present at levels below those considered to be harmful or damaging to a receptor, then there can be no adverse effect on a receptor
- if there is no receptor present that can be adversely affected by a contaminant, no harm or damage can arise
- even where both a contaminant and a receptor are present, no harm or damage will occur if there is no pathway by or through which a linkage between the two can be established

The absence of one or more of each component (source, pathway, receptor) would prevent a pollutant linkage being established and there would be no significant environmental risk.

Consequence of Risk

CLASSIFICATION	DEFINITION	EXAMPLES
Severe	Highly elevated concentrations likely to result in "significant harm" to human health as defined by the EPA 1990, Part 2A, if exposure occurs. Equivalent to EA Category 1 pollution incident including persistent and/or extensive effects on water quality; leading to closure of a potable abstraction point; major impact on amenity value or major damage to agriculture or commerce. Short term risk of pollution of sensitive (H1/H2) water resource. Major damage to aquatic or other ecosystems, which is likely to result in a substantial adverse change in its functioning or harm to a species of special interest that endangers the long-term maintenance of the population. A short term risk to a particular ecosystem, or organism forming part of such ecosystem. Catastrophic damage to crops, buildings or property.	Significant harm to humans is defined in circular 01/2006 as death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions. Major fish kill in surface water from large spillage of contaminants from site. Highly elevated concentrations of List I and II substances present in groundwater close to small potable abstraction (high sensitivity). Explosion, causing building collapse (can also equate to immediate human health risk if buildings are occupied).
Medium	Elevated concentrations which could result in "significant harm" or "significant possibility of significant harm" to human health as defined by the EPA 1990, Part 2A if exposure occurs. Equivalent to EA Category 2 pollution incident including significant effect on water quality; notification required to abstractors; reduction in amenity value or significant damage to agriculture or commerce. Pollution of a highly sensitive (H1/H2) water resource. Significant damage/change to aquatic or other ecosystems, which may result in a substantial adverse change in its functioning or harm to a species of special interest that may endanger the long-term maintenance of the population. Significant damage to crops, buildings or property.	Significant harm to humans is defined in circular 01/2006 as death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions. Damage to building rendering it unsafe to occupy e.g. foundation damage resulting in instability. Ingress of contaminants through plastic potable water pipes.
Mild	Exposure to human health unlikely to lead to "significant harm". Equivalent to EA Category 3 pollution incident including minimal or short lived effect on water quality; marginal effect on amenity value, agriculture or commerce. Pollution of moderately sensitive (M1/M2) water resources. Minor or short lived damage to aquatic or other ecosystems, which is unlikely to result in a substantial adverse change in its functioning or harm to a species of special interest that would endanger the long-term maintenance of the population.	Exposure could lead to slight short-term effects (e.g. mild skin rash). Surface spalling of concrete.

	Significant damage to crops, buildings, structures and services ("significant harm" as defined in Circular 1/2006).	
Minor	No measurable effect on humans. Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems. Repairable effects of damage to buildings, structures and services. Pollution of low sensitive (L1/L2) water resource. Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc). Easily repairable effects of damage to buildings, structures and services.	The loss of plants in a landscaping scheme. Discoloration of concrete.

Probability of Risk Occurring

CLASSIFICATION	DEFINITION	EXAMPLES
High Likelihood	There is pollutant linkage and an event would appear very likely in the short-term and almost inevitable over the long-term, or there is evidence at the receptor of harm or pollution.	a) Elevated concentrations of toxic contaminants are present in soils in the top 0.5m in a residential garden. b) Ground/groundwater contamination could be present from chemical works, containing a number of USTs, having been in operation on the same site for over 50 years.
Likely	There is pollutant linkage and all the elements are present and in the right place which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short-term and likely over the long-term.	a) Elevated concentrations of toxic contaminants are present in soils at depths of 0.5-1.0m in a residential garden, or the top 0.5m in public open space. b) Ground/groundwater contamination could be present from an industrial site containing a UST present between 1970 and 1990. The tank is known to be single skin. There is no evidence of leakage although there are no records of integrity tests.
Low Likelihood	There is pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a long period such an event would take place, and is less likely in the shorter term.	a) Elevated concentrations of toxic contaminants are present in soils at depths >1m in a residential garden, or 0.5-1.0m in public open space. b) Ground/groundwater contamination could be present on a light industrial unit constructed in the 1990s containing a UST in operation over the last 10 years – the tank is double skinned but there is no integrity testing or evidence of leakage.
Unlikely	There is pollutant linkage but circumstances are such that it is improbable that an event would occur even in the very long-term.	a) Elevated concentrations of toxic contaminants are present below hardstanding. b) Light industrial unit <10 yrs old containing a doubleskinned UST with annual integrity testing results available.

Calculation of Risk

		CONSEQUENCE			
		Severe	Medium	Mild	Minor
PROBABILITY	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate / Low Risk
	Likely	High Risk	Moderate Risk	Moderate / Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate / Low Risk	Low Risk	Very low Risk
	Unlikely	Moderate / Low Risk	Low Risk	Very low Risk	Very low Risk

Appendix 5 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

This report was undertaken for at the request of *ADP Architecture and Design* and as such should not be entrusted to any third party without written permission of ***Martin Environmental Solutions***. No other third parties may rely upon or reproduce the contents of this report without the written permission of ***Martin Environmental Solutions***. If any unauthorised third party comes into possession of this report, they rely on it at their own risk and the authors do not owe them any duty of care or skill.

This report has been compiled from a number of sources, within the time constraints of the programme, which ***Martin Environmental Solutions*** believes to be trustworthy. However, ***Martin Environmental Solutions*** is unable to guarantee the accuracy of information provided by third parties.

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.

All of the comments and opinions contained in this report, including any conclusions, are based on the information obtained by ***Martin Environmental Solutions***. The conclusions

drawn by ***Martin Environmental Solutions*** could therefore differ if the information obtained is found to be misrepresentative, inaccurate, or misleading. ***Martin Environmental Solutions*** reserves the right to amend their conclusions and recommendations in the light of further information that may become available.

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.