# **Appendix C Principles of Environmental Risk Assessment**

#### **Principles of Environmental Risk Assessment**

The Environmental Protection Act 1990, Part II A Contaminated Land (Section 57 of the Environment Act 1995) and the Contaminated Land Regulations 2006 (and 2012 amendments) provide a basis on which to determine the risks and liabilities presented by a contaminated site. Contaminated Land is defined within Section 78A(2) of the Environmental Protection Act 1990, Part II A Contaminated Land (by commencement of Section 86 of The Water Act 2003 [Commencement Order No. 11] Order 2012) as:

"Any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land that-

- (a) Significant harm is being caused or there is significant possibility of such harm being caused; or
- (b) Significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused."

Section 57 of the Environment Act 1995 requires that any site identified as being "contaminated" by the Local Authority will be registered by them and remediation will be required to render the site fit for use.

The presence of contamination is not the sole factor for deciding whether a site is contaminated. Relevant parties should identify site-specific risks and provide objective, cost-effective methods to manage the contamination in a manner which satisfies the proposed end-use.

A risk-based approach, which takes both technical and non-technical aspects into consideration when making decisions on contamination resulting from past, present or future human activities, is advocated. The assessment of environmental risks generally relies on the identification of three principal elements forming a 'pollutant or contaminant linkage':

**Source:** the contaminant

**Pathway:** the route through which the contaminant can migrate, and

**Receptor:** all human, animal, plant, controlled water or property that may be adversely affected

(harmed) by the contaminant

In the absence of one of these elements, on a given site, there is no risk. Where all three elements are present, risk assessment is required to determine the significance of the harm or pollution that is being or may be caused. As outlined above, the terms of the Contaminated Land regime specify that remediation need only be implemented where a site is causing, or there is a significant possibility that it will cause, significant harm, or that pollution of controlled waters is being caused or there is a significant possibility of such pollution being caused.

Development of contaminated land is usually addressed through the application of planning and development legislation and guidance (i.e. NPPF). The suitable for use approach is regarded as the most appropriate basis to deal with contaminated land, taking account of environmental, social and economic objectives. The assessment is made in the context of the proposed land use.

#### **Risk Classification Matrix**

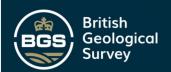
		Consequence							
		Severe (Sv)	Medium (Md)	Mild (Mi)	Minor (Mr)				
	High (Hi)	Very high risk	High Risk	Moderate Risk	Moderate/low risk				
Ē	Likely (Li)	High risk	Moderate risk	Moderate/low risk	Low risk				
Jabil	Low likelihood (Lw)	Moderate risk	Moderate/low risk	Low risk	Very low risk				
Prok	Unlikely (UI)	Moderate/low risk	Low risk	Very low risk	Very low risk				

After CIRIA Report C552, Contaminated Land Risk Assessment A Guide to Good Practice, 2001

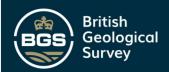
#### **Classification of Consequence**

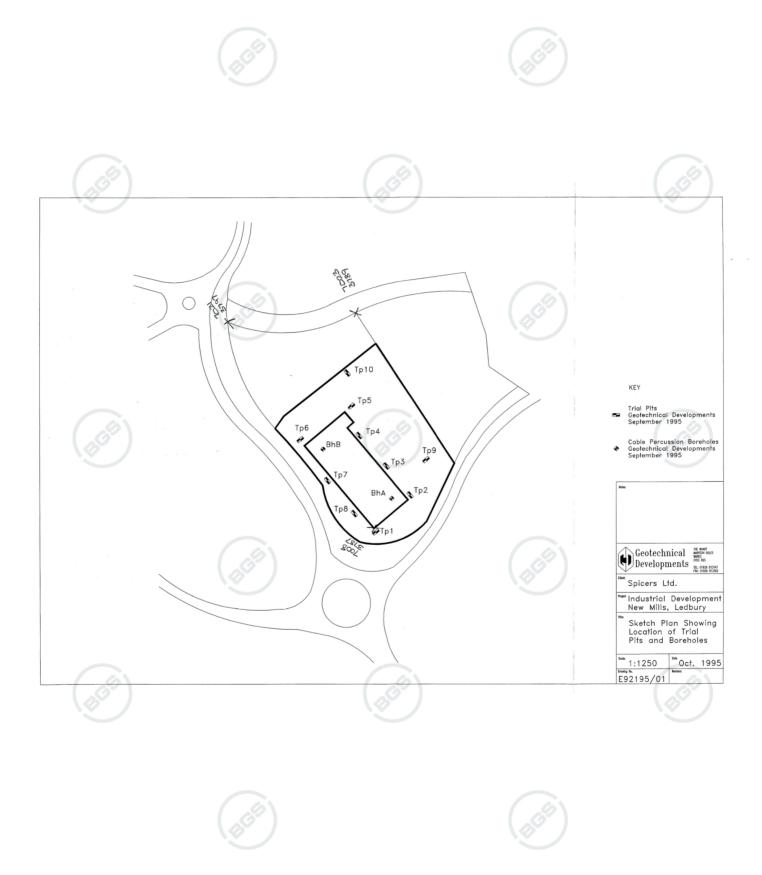
Classification	Definition	Examples
Severe	Short-term (acute) risk to human health likely to result in "significant harm" as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource. Catastrophic damage to buildings/property. A short-term risk to a particular ecosystem or organisation forming part of such ecosystem (note: the definitions of ecological systems within the Draft Circular on Contaminated Land, DETR, 2000).	High concentrations of cyanide on the surface of an informal recreation area. Major spillage of contaminants from site into controlled water. Explosion, causing building collapse (can also equate to a short-term human health risk if buildings are occupied).
Medium	Chronic damage to Human Health ("significant harm" as defined in DETR, 2000). Pollution of sensitive water resources (note: Water Resources Act contains no scope for considering significance of pollution). A significant change in a particular ecosystem or organism forming part of such ecosystem, (note: the definitions of ecological systems within Draft Circular on Contaminated Land, DETR, 2000).	Concentration of a contaminant from site exceeds the generic or site-specific assessment criteria. Leaching of contaminants from a site to a major or minor aquifer. Death of a species within a designated nature reserve. Lesser toxic and asphyxiate effects of carbon dioxide
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ("significant harm" as defined in the Draft Circular on Contaminated Land, DETR, 2000). Damage to sensitive buildings/structures/services or the environment.	Pollution of non-classified groundwater. Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor	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 presence of contaminants at such concentrations that protective equipment is required during site works. The loss of plants in a landscaping scheme. Discoloration of concrete.

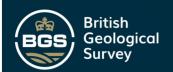
# Appendix D BGS Borehole Logs



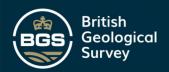
ethod	ole Percussion	Date 05/0	9/95	, 200	Site Industrial Development New Mills, Ledbury	
ia mm	Coord		Ground Level m.OD	<u></u>	Client	
150 Soil Sampl		0000E 237800N	OD Level	Depth	Spicers Ltd. Ledbury  Description of Strata	Legend
ype/Test	Depth m.	Field Records	m.	m.	Description of Strata	
1	0.00 - 0.50				Topsoil above silty CLAY (TOPSOIL/HEAD) (0.50)	
2	0.50 - 1.00		7,000	0.50	Very stiff silty gravelly CLAY (HEAD) (0.40)	× × ×
L N=54	1.45 - 2.00	,17/14,14,13,13		0.90	Very dense/dense orange/red brown slightly sandy silty fine to medium GRAVEL (TERRACE DEPOSIT) (2.10)	*, *
2 N=47	2.00 - 2.45	,16/11,12,12,12				×××
5	2.45 - 3.00	Strike			(05°)	×
3 N=49	3.00 - 3.45	,16/11,12,12,14		3.00	Dense to very dense orange brown fine to coarse slightly sandy fine to medium GRAVEL.	×.`
8	3.45 - 4.15			E	(WEATHERED RAGIAN FORMATION/TERRACE DEPOSIT)	
1 N=83	4.15 - 4.60	,20/12,13,25,33		4.40		. 0
10	4.40 - 5.55				Very dense/hard/moderately weak red brown gravelly silty MUDSTONE/clayey SILTSTONE (RAGLAN FORMATION) (1.60)	
5 N=115	5.55 - 6.00	,23/17,21,34,43				
				6.00		
	(<	(50)	, and the second		(4000)	(Transfer
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			, gaban			
Remark	S encountered at	2.50m bgl.	<u></u>	<u>F</u>	Logged by Scale End Casing Depth m.	
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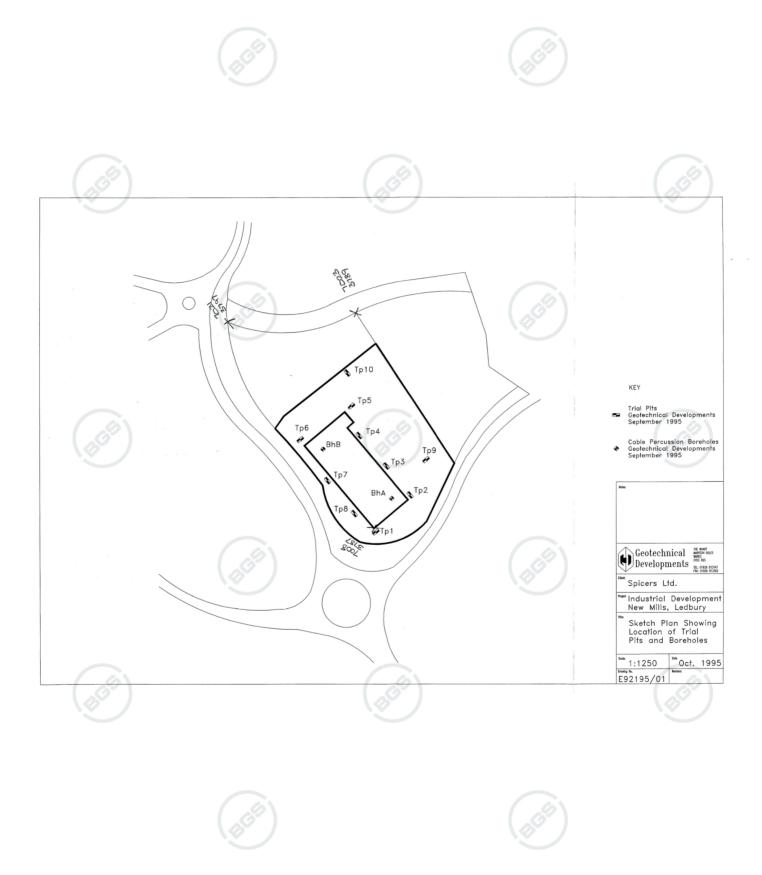


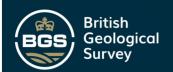




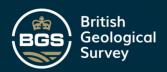
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ia mm	Coord			Ground Level m.O		Client Spicers Ltd., Ledbury		
Soil Samples/Tes		000E 237	800N		Depth	-	- Linda - , Linday -	Legend
ype/Test De	oth m.	Field	Records	OD Level m.	m.	Description of Strata		
		***************************************			0.30	Hard fissured gravelly/clay TOPSOIL wire roots. (0.30)	th many	
1 0.4	О					Very hard, fissured red/orange brown silty sandy CLAY. (HEAD) (0.40)	gravelly	x
1 0.8	0 - 1.80				0.70	Very dense/dense, orange brown mottle grey fine to coarse angular to well r sandy GRAVEL with occasional cobbles angular sandstone/siltstone. (TERRAC (1.40)	ounded of	
D2 2	30				2.10	Loose to medium dense orange/red brow coarse angular silty slightly clayey occasional cobbles of sandstone/silts (TERRACE DEPOSIT) (0.60)  Very dense/Coarse uniformly graded/ar GRAVEL of siltstone/fine sandstone.	sand with	X X X X X X X X X X X X X X X X X X X
	(0)	Rapid i	ngress.		3.20	DEPOSIT) (see note) (0.50)		*****
At 3.2m bg	rial pit sta l intact roc ngress. r ingress at	k, unab		ntify/samp	le due	JCB 1:25 m.  Sample/Test key: D Disturbed sample Hv Hc	Casing Depth  ind Vane (KPa)  inetrometer (ki	E92195

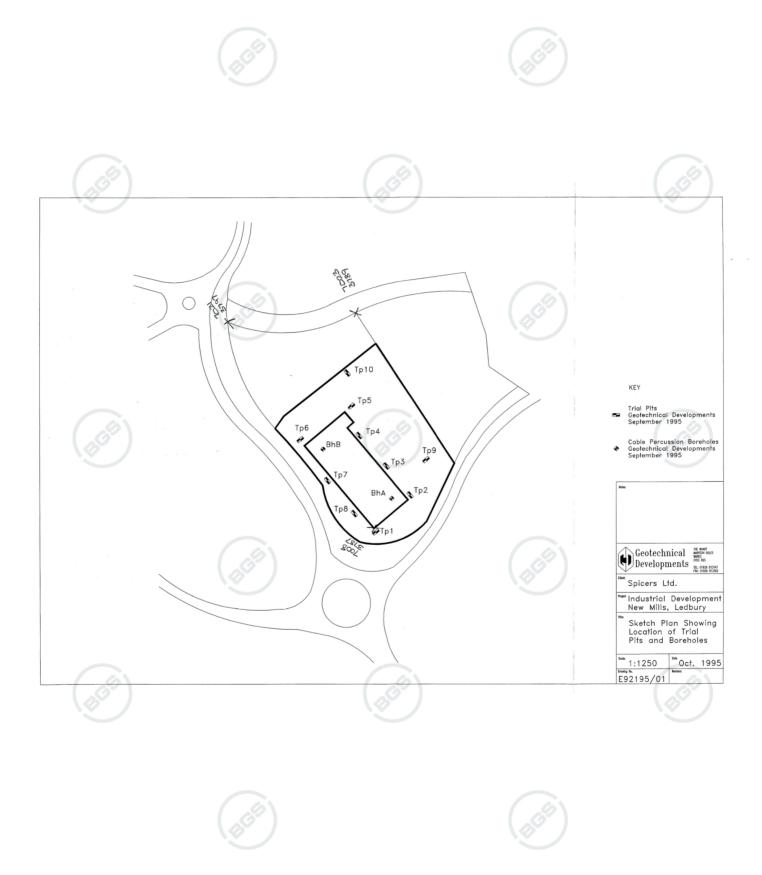


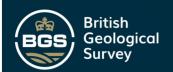




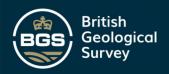
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Soil Samples/Tests	70000E 237800N		Depth	Spicers Ltd., Ledbury	1	
Type/Test Depth m.	Field Records	OD Level m.	m.	Description of Strata		
0.50			0.30	Topsoil - very sandy silty CLAY with mots. (0.30)  Firm/stiff orange/red brown very sand CLAY with occasional cobbles/gravels sandstone/siltstone and fine roots be sandy gravel below 0.5m. (HEAD) (0.70)	y silty of	x _ x _ x
1.20 - 2.00	30 <sup>(5)</sup>		1.20	Very dense green/grey siltstone/fine sandstone GRAVEL with some fine to coangular sand. (TERRACE DEPOSIT) (0.2 Medium dense/dense, red/orange brown well rounded/angular GRAVEL with some coarse sand becoming very sandy with (TERRACE DEPOSIT) (1.20)	medium medium-	× × ×
	Rapid ingress.		2.40	Medium dense red brown fine-coarse gr SAND becoming very dense at 3.2m bgl WEATHERED BEDROCK) (0.80)	eavelly (POSSIBLE	
(	30 <sup>(5)</sup> )		3.20	(Baga)		
			770			C
Remarks Sides of trial pit: At 3.2m bgl possible further due to wate: Rapid water ingress	e bedrock - unable t r ingress and very	dense form	ation.	JCE 1:25 m.  Sample/Test key: D Disturbed sample Hv Ha	Casing Depth Jo E nd Vane (KPa) netrometer (kg/	92195

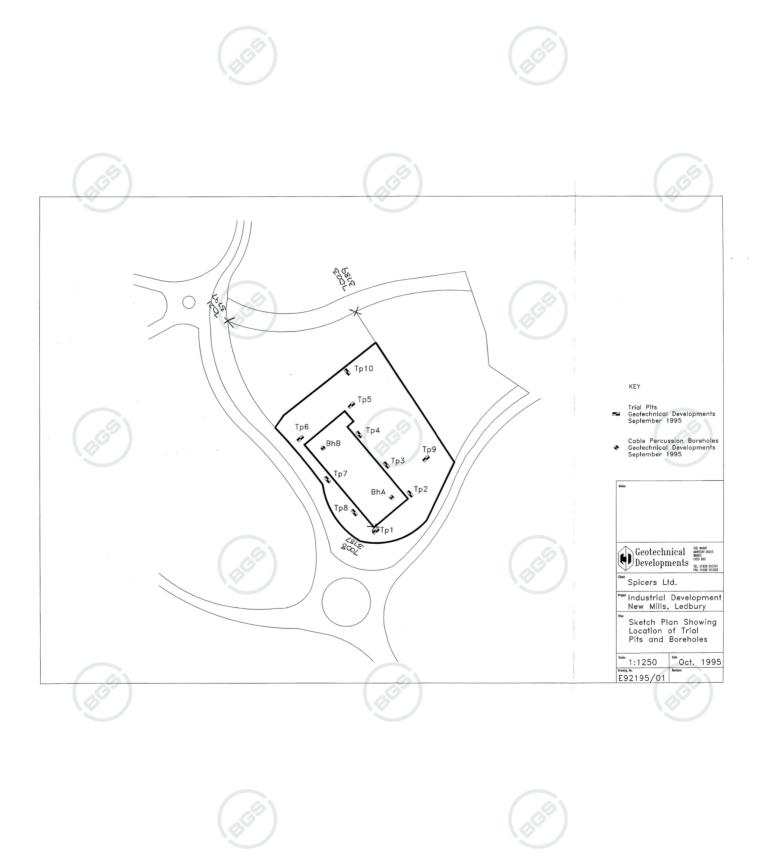






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mm Coord	70000E 237800N	Ground Level m.O	D	Client Spicers Ltd., Ledbury		<u> با باردان با باردان با</u>
oil Samples/Tests Depth m.	Field Records	OD Level	Depth m.	Description of Strata		Legend
			0.30	Topsoil - stiff sandy silty CLAY with roots, highly dessicated. (TOPSOIL)  Stiff - hard red brown fissured very	sandy	* — .
0.40 - 0.90			0.90	silty CLAY with occasional fine angulgravel. (HEAD) (0.60)  Dense - very dense coarse angular sasiltstone GRAVEL becoming orange/red very sandy slightly silty fine to merounded angular gravel. (TERRACE DE	ndstone/	× × × × × × × × × × × × × × × × × × ×
				rounded angular gravel. (TERRACE DE	POSIT)	
			2.10			
				(BGB)		
Remarks Sides of trial pit	stable.			l m	Casing Depth	
Dry.	DOS)			Sample/Test key  D Disturbed sample Hv H	and Vane (KPa) enetrometer (k	





# **Appendix E Statutory Consultations**



Directorate/Division: Economy and Environment

Team: Environmental Health & Trading Standards

Please ask for: Mrs Marian Boreham

Our Ref: EEIR383601
Direct line: 01432 261761

Email: mboreham@herefordshire.gov.uk

Date: 18/07/2023

#### **Private and Confidential**

Mr Thomas Brinded
Oak House
Reeds Crescent
Watford
WD24 4QP

Dear Mr Brinded

RE: LEDBURY, HR8 2SR

Please find a copy of your information enclosed, as requested.

Please let me know if you require any further information or are dissatisfied with the handling of your request.

Yours sincerely

Mrs Marian Boreham ENVIRONMENTAL LIAISON OFFICER

#### **RESPONSE**

Enhanced Environmental Information Regulation (EEIR) request form					
Date:	11 <sup>th</sup> July 2023				
Receipt of enquiry:	Received EHTS				
HC Reference Number:	EEIR0148				
Address/Location:	Leadon Way, Ledbury				
Postcode:	HR8 2SR				
Grid reference (if known):					
Plan Reference No:	SK003				

#### **Enquiry:**

Fairhurst are undertaking environmental desk study assessments for a site with the following approximate postcode:

Leadon Way Ledbury, HR8 2SR

A site outline in the form of a red boundary is also attached to help define this area.

Can you please provide information on the environmental setting for the site from your records, including information on:

- 1. Details of any groundwater and surface water abstractions and their purpose, at the site and within a 1km radius?;
- 2. Details of any landfills (current and / or historical) at the site and within 500m, including any information on infill materials, dates of infilling, and any groundwater / ground gas monitoring data. Also, have there been any issues relating to land contamination for the respective landfills?;
- 3. Details of any contaminated land and pollution incidents at the subject site and within a 500m radius?;
- 4. If the site / portions of the site, and surrounding area within 1km radius, are designated as contaminated land under part 2a of the Environmental Protection Act 1990 (as amended), including whether any identifications are classified as Special Sites?;
- 5. Details of any water quality information at the site and within 500m?;
- 6. Details of any information on groundwater flow direction beneath the site?;
- 7. Details of any further pertinent information relating to
  - (a) contaminated land
  - (b) controlled waters at the site and within 1km?; and
- 8. Details of any information on groundwater level at and within 500m of the site.

I refer to the above EEIR enquiry regarding the above mentioned property (as outlined in red on the site plan provided). This division can provide comment on questions 1, 2, 3, 4 and 7(a). You may wish to contact the Environment Agency concerning the remaining questions. On current information readily available to this division I can confirm:

- 1. Private water supplies within 1km of the subject site, including:
  - · location/grid reference
  - details of source and abstraction purpose

I refer to the EIR enquiry regarding the above mentioned area.

It is this divisions understanding that the following private groundwater abstractions (from this council's register) are within 1km of the subject site –

Premises Usage Description	Easting	Northing	Type Of Source
SDDW SID - Single Domestic Water Supply	370282	238586	Well
DOMS SMD - Small Domestic Water Supply	369477	238357	Borehole

Please note that the National Grid Reference may be the location of the property which is not necessarily in many cases the same as the water source which may be located at some distance.

This information is based on that currently readily available to the County of Herefordshire District Council. It is given on the strict understanding that neither the Council, nor any of its Officers, warrant the accuracy of this information, or accept any liability whatsoever for any error omission therein, or any loss or damage arising from the interpretation or use of the information supplied. The Enquirer should rely on the results of their own investigations.

Date: 11/07/2023 Name: Gill Armitage

2. The site is approximately 415m north of a known closed landfill site as notified by the Environment Agency. The following is a summary of readily available information relating to the site commonly referred to as Ledbury landfill site.

#### Site History

WML reference: 1.019.4.07

Date of first waste input: 31/12/1960 (estimate)
Date of last waste input: 31/12/1978 (estimate)

#### Site Details

Max. volume of waste permitted: 0.04 million m3

Total Site Area: 3.2 ha

Permitted wastes: Household and Inert

#### Monitoring Records.

This Division has not undertaken any monitoring of the site.

This Division holds no records with respect to currently active or operating landfill sites. Information regarding operating landfills may be available from the Environment Agency. They can be contacted on 03708 506 506.

3. This Division holds no record of any pollution incidents at the site but you may wish to check with the Environment Agency who may retain records relating to pollution incidents. They can be contacted on 03708 506 506.

4. (a)

I can advise you that this property or any surrounding sites (within 1km of the property boundary) have not been included in the Council's Register of Contaminated Land under the Environmental Protection Act 1990. Entries will only appear on the register once land has been formally identified as contaminated land by the Authority, so the absence of entries does not guarantee freedom from contamination or from risk of harm. The register cannot provide a substitute for physical tests and surveys.

(b)

The site's historic land use is not the type of land required to be designated as a 'special site' and unlikely to be identified as a 'special site'. Should there be any concern about the condition of the land it is recommended that specialist advice be sought.

- 7. (a) Records held by this division show that the following potentially contaminative uses have occurred within the and adjacent the site boundary (outlined in red on your site plan):
  - Historical maps indicate the site has historically been used for industrial uses; factory or works
    use not specified and it is my understanding the site is currently used for engineering works –
    these are all potentially contaminative uses.
  - Historical plans from the mid 1950's indicate two areas of ground adjacent the; north and east section of the site boundary which has been identified as unknown filled ground (pond, marsh, river, stream, dock etc.)

Sites identified as unknown filled ground can be associated with contaminative fill material. In practice, many sites identified through the historical mapping process as unknown filled ground are instances where hollows have been made level with natural material, have remained as unfilled 'hollows' or have filled through natural processes. However, there are some instances where the nature of the fill is not inert and would require further investigation. Without any additional information it is not possible to comment further on this site

**Disclaimer:** This information is based on that currently readily available to the County of Herefordshire District Council. It is given on the strict understanding that the Council, nor any of its Officers, warrant the accuracy of this information, or accept any liability whatsoever for any error or omission therein, or any loss or damage arising from the interpretation or use of the information supplied. The Enquirer should rely on the results of their own investigations.

## Appendix F Photolog

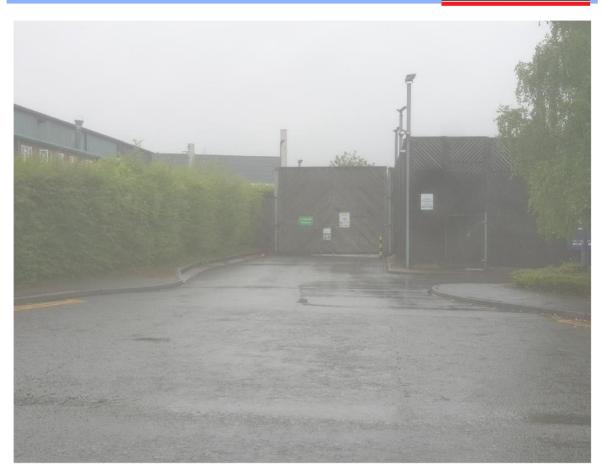


Photo 1: Road access via New Mills industrial estate (facing south east).



Photo 2: New Mills industrial estate leading to the roundabout turn off (facing north west).



Photo 3: Gated access to the HGV loading bays located with the site (facing south east).



Photo 4: Gate located at the entrance to the Homebase car park (facing north east).

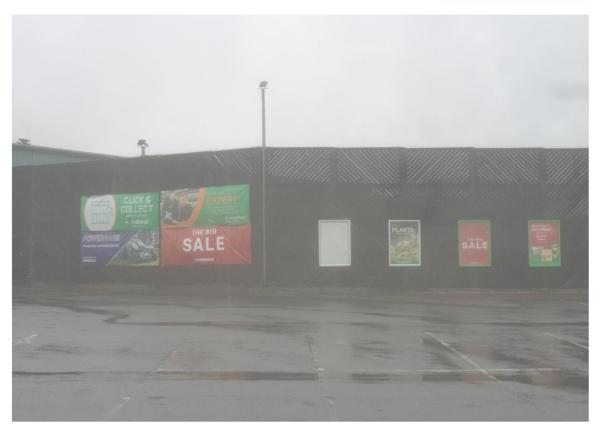


Photo 5: View of part of the Homebase buildings in particular the wall separating the car park from part of the garden centre section (facing south west)

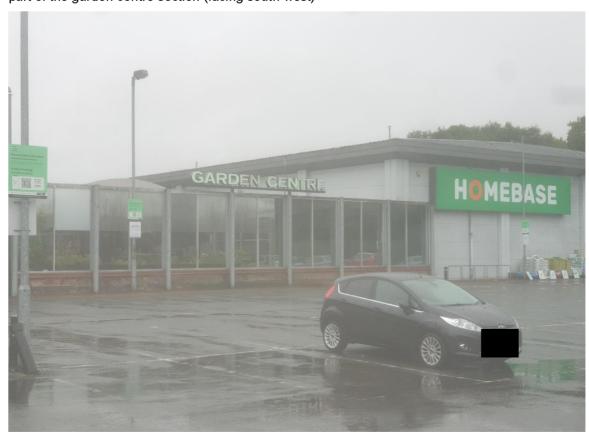


Photo 6: The other exterior wall to the garden centre section of the Homebase unit (facing south west)



Photo 7: Car park area in good condition (facing north)