

Cockpit Barn - addendum to desk study report

Job number 000467

20 June 2024

1 Objective

Further to the report *Desk study and preliminary risk assessment report*, Lake Environmental, July 2021, an alternative planning permission has been granted for the site known as Cockpit Barn. The initial report was produced by the current author in relation to a planning application for the conversion of the building to residential with associated gardens, soft landscaping and infrastructure, and made recommendations for site investigation on this basis. The current planning permission relates to the following:

PN/23/96355 Application for prior approval under Class R of the General Permitted Development Order, for conversion of part of existing building to light industrial use (Class E(g)(iii)).

The permission contains two conditions relating to contaminated land, in the context of the existing report, as follows:

Condition 2: The development hereby approved shall not commence until the following has been submitted to, and approved in writing by the Local Planning Authority:

- a) An addendum desk study and preliminary risk assessment report (based on the report prepared by Lake Environmental dated July 2021);*
- b) A site investigation report, documenting the ground conditions of the site and incorporating chemical and gas analysis identified as appropriate by the desk study*
- c) A detailed site specific scheme for remedial works, and measures to be undertaken to avoid the risk from contaminants and/or gases when the site is developed, and proposals for future maintenance and monitoring. Such a scheme shall include nomination of a competent person to oversee the implementation of the works*

Condition 3: The development hereby approved shall not be occupied / brought into use until there has been submitted to the LPA verification by the competent person approved under the provisions of condition 2(c) that any remediation scheme required and approved under the provisions of condition 2(c) has been implemented fully in accordance with the approved details (unless varied with the written permission of the LPA in advance of implementation). Typically such a report would comprise:

- a) A description of the site and its background, and summary of relevant site information,*
- b) A description of the remediation objectives and remedial works carried out*
- c) Verification data, including - data (sample locations/analytical results, as built drawings of the implemented scheme, photographs of the remediation works in progress, etc.*

- d) *Certificates demonstrating that imported and/or material left in situ is free from contamination, and gas /vapour membranes have been installed correctly.*
Thereafter the scheme shall be monitored and maintained in accordance with the scheme approved under condition 2(c)

This technical note has been prepared pursuant to discharge of condition 2.

2 Proposed works

The current planning permission relates to only the southern section of the area where the poultry house is located (referred to as Zone A within the previous report), as indicated in Figure 1 below outlined in red.



Figure 1: area of proposed use

The pre-occupancy works required are as follows:

- Internal:
 - Construction of two bin stores
 - Installation of bicycle racks
 - Construction of toilet facilities, with associated wastewater pipes
- External:
 - Construction of wastewater run from building to mains located on adjacent Knowle Lane
 - Raising levels to create parking/turning space.

The internal works will in the main comprise the use of wooden framework on the existing walls to enable lining, and the use of stud walls for the bin stores and toilet facilities. Electricity and water supplies are

already extant in the building and will be extended internally to the points of use without the disturbance of the existing structure.

The exception will be the installation of wastewater pipes from the toilet facilities, which will require some groundworks.

The external works will require the excavation of a trench from the southeast corner of the building to the main sewer located in Knowle Lane, and the raising/levelling of the area indicated in Figure 1 above by approximately 400mm.

3 Background

As identified in the previous report, the site was in open agricultural use until around 1960 when cut and fill activities created a level platform, and the exiting poultry house with infrastructure was constructed. Operation of the poultry house continued until 2018.

The preliminary risk assessment identified potential contaminants associated with poultry farming, the infrastructure and fuel storage. This is summarised in Figures 2 (schematic) and 3 (plan) below.

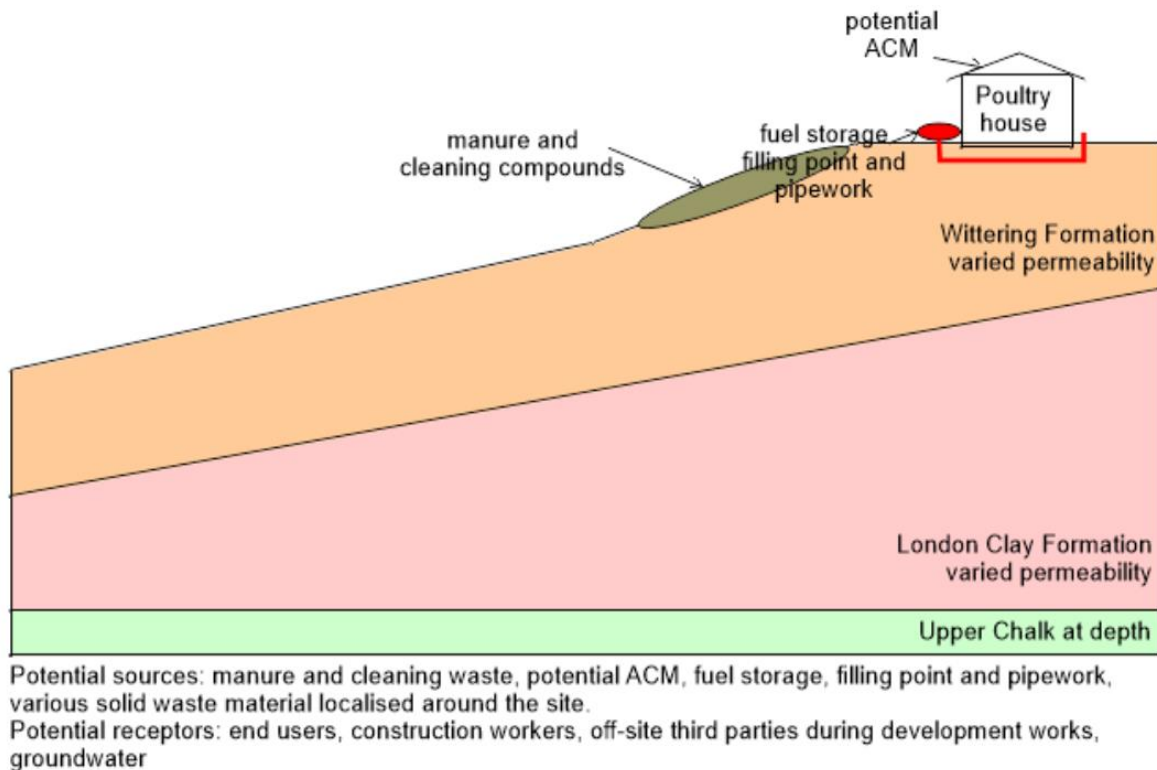


Figure 2: Simplistic ground model

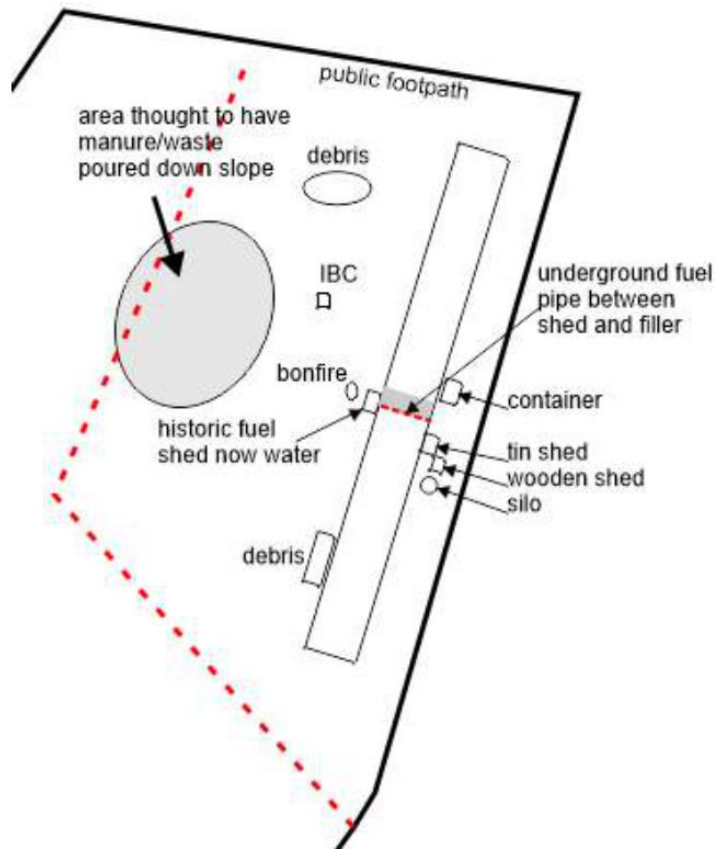


Figure 3: plan view of site identifying location of features identified in previous report

In the context of the current proposals, it can be seen that no specific features are located within the area under consideration, however the asbestos cement roof extends across the entire poultry house. There is also the potential for residual contamination to be present in the external shallow soils in the following forms (as identified in the previous report):

- Asbestos cement fragments and fibres
- Pesticides and disinfectants
- Pathogens
- Antibiotics
- Fuel oil.

4 Discussion

Potential exposure pathways must be considered both during preparatory works and during end-use. On the basis of source-pathway-receptor, and based on the proposed end use, it is not considered that extensive site investigation is required, however some consideration is required.

4.1 Preparatory works

The internal works will require very little disturbance of the existing structure, with the exception of localised excavation to install wastewater pipework. The land raising and levelling that occurred prior to construction of the poultry house was undertaken using site-won material, and as such it is considered unlikely that the shallow soils underlying the concrete floor of the building are contaminated. The previous

report identified that the asbestos cement roofing had previously been damaged and subsequently sealed with a chemical compound, however there is the potential for some additional damage to have occurred.

The external works include the installation of a sewage line from the southeast corner of the building to the main sewer on Knowle Lane. This will require the excavation of a trench of approximately 5m in length to an unknown depth (dependant on the depth of the main sewer in relation to the existing site level). It should be considered likely that there is some contamination within the shallow soils across this area of the site.

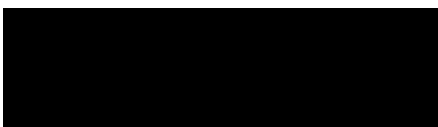
The site raising and levelling will not require any excavation.

5 Recommendations

With consideration of construction workers, end users, neighbours, sustainability and the nature of the potential contaminants identified in the previous report, the following measures are recommended to break any exposure pathways:

- The installation of an internal liner to the asbestos cement roof.
 - To prevent the inhalation of asbestos fibres by end users.
- The use of dust suppression techniques during internal works.
 - To prevent the inhalation of asbestos fibres by construction workers.
- The use of dust suppression techniques and appropriate PPE during excavation of the sewage trench.
 - To prevent the inhalation of/exposure to potential contaminants by groundworkers/neighbours.
- The backfilling of the sewage trench with clean imported materials.
 - To prevent the exposure to potential contaminants of future maintenance workers.
- The placement of arisings from the excavation of the sewage trench and the limited internal works on the existing surface, to be covered until land raising commences at which time they should be levelled across the base of the land raise and an appropriate fabric barrier placed on top prior to raising levels across the site with clean imported materials.
 - To reduce vehicle movements etc required to remove material from site.
 - To separate clean imported materials from existing shallow soils/soils excavated from trench.
- The use of dust suppression techniques and appropriate PPE during land raising.

Signed:

A solid black rectangular box used to redact the signature of Sarah Haines.

Sarah Haines

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