due diligence auditing (phase 1)

Due diligence audits (also called Phase I audits) are often performed to determine the potential environmental conditions and liabilities at a site. They are used as a means of identifying issues during property acquisitions, divestitures or mergers. Audits are set to become even more valuable to organisations trading land, as the government continues to implement Part II(a) of the Environmental Protection Act (1990). This requires local authorities to assess the land within their area and identify potentially contaminated sites.

From a company point of view, the risks associated with purchasing potentially contaminated land include:

- Reduction in property value and the knock on effect to company value
- Property blight, resulting in a site that is difficult to re-sell
- Health and safety issues in respect of site staff and neighbours
- Liability under common law for nuisance or negligence or for non-compliance with statutory regulations
- Impact on the reputation of the company
- Costs of remedial work.

Methodology

Due diligence audits usually comprise a non-intrusive process of carrying out a systematic and structured assessment of the environmental condition of a site.

During a basic audit the potential liabilities of ownership will be assessed through:

- **Review of Historic mapping**
  This highlights the previous land uses of the site, and if any of these could be classed as potentially contaminative. In the UK it is usual to be able to access maps from the late 1880's to the present day. For the majority of sites this covers the period in which they were first developed.

- **Review of Local land use data**
  Potentially contaminating activities and nearby sensitive environmental sites can be assessed from environmental database information. This typically includes statutory authority permitting, the location of waste disposal or handling sites, sites handling hazardous substances, industrial land use, sites of special scientific interest and the use of local groundwater resources. This allows the assessment of the potential environmental impact that neighbouring properties may have on the site and the potential impact on sensitive receptors.

- **Review of geological, hydrogeological and groundwater vulnerability data**
  Geological and hydrogeological maps provide details of the soil and groundwater underlying a site.
  This allows an assessment of the migration potential of contaminants to be made. The impact that contamination may have on sensitive receptors such as local groundwater resources can also be assessed.

- **Interviews with the site personnel**
  Interviews provide an insight into the current and historical activities at a site. This can allow the identification of environmental concerns that quite often are not obvious, such as details of historical chemical spills or problems with drainage systems.

- **Walkover inspection of the site**
  During a walkover, the site processes and general condition of the site are assessed with particular attention paid to areas where potentially contaminating material or wastes are used or stored. This section of the audit aims to document potential contaminant sources and migration pathways for contaminants originating from the current, and if possible, historical site processes. This can be used to determine whether a connection potential exists between the source, via the pathways, to the receptor.

- **Visual assessment of the surrounding land use**
  Surrounding sites can often be a source of cross-boundary contamination. A visual assessment can often identify impacts on the site from the neighbouring properties and issues that indicate poor environmental management that may give rise to future concerns.

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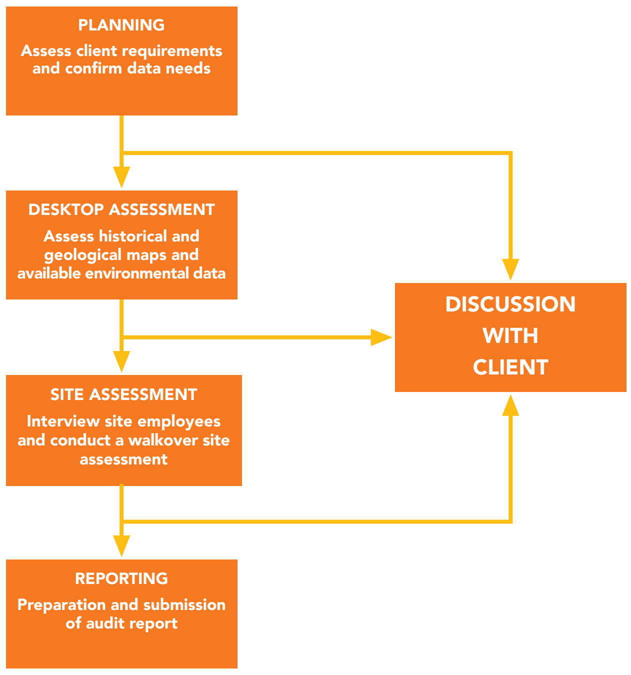
This document, while not fully in line with UK practices, provides information on what to expect from a due diligence audit and makes good background reading.

In addition most good environmental textbooks should have a section on auditing. Audits should, as necessary, be tailored to the individual site. The need to agree the scope before commencement of the work is imperative if the audit report is to fully benefit the client. The flow chart below shows a general phased audit approach.



In summary, due diligence audits can provide a cost effective assessment of the contamination potential of a site. This aids the correct evaluation of the value of a property and reduces the risk of contamination being identified subsequent to the transfer of ownership of a property.

Compliance Audits

The scope of due diligence audits can be amended to include assessment of the ongoing activities at a site, including compliance with regulations and best environmental practice. This indicates to a potential purchaser the cost of implementing changes to update the current operating practices at a site. The common variations on the scope of audits include, but are not limited to, health and safety assessment, risk assessment/management, chemical or material management, management and policy assessment and air, water, waste and process assessment.

Audit Report

An audit report will identify areas of potential environmental concern that exist at a site due to the current and historical use of the site. The conclusions section will detail how these findings may affect the site in relation to future use and will, if necessary, detail any further works required.

Published Guidance

In the UK, guidance for conducting Phase I due diligence audits is partially detailed in British Standard document BS10175:2001, Code of Practice for the Investigation of Potentially Contaminates Sites. More detailed guidance on the scope of a due diligence audit is detailed in ASTM (American Society for Testing and Materials) document E 1527-00, Standard Practice for Environmental Site Assessment: Phase I Site Assessment Process.

Conestoga-Rovers & Associates (UK) Ltd is an independent environmental consultancy providing a complete range of engineering and environmental services to industry and commerce worldwide. Service areas include operations support, property & land, environmental management and IT.