

## Workshop B: CIRIA C540 Module 2 Identifying Objectives and Constraints

### Task

A site has been used for the disposal of process wastes from a number of chemical production facilities. Area A was constructed by the excavation of chalk, with limited surface bunding to create deep settling ponds for slurry wastes. On cessation of chemical production, the silt ponds were capped with a mixture of clay and chalk to provide a site level with adjoining land on two boundaries.

Area B received the same wastes, but was built up above ground level to a height of some 10m.

The site investigation has revealed that the ground is contaminated with heavy metals, cyanide and chlorinated solvents. The site is located over a sensitive aquifer, from which drinking water is abstracted down gradient of the site, although none of the contaminants found in the soils have been detected in the groundwater to date. The chlorinated solvents are giving rise to odours and elevated concentrations of volatile organic compounds in the soil gas.

The chemical company, the current owners, wish to reclaim and redevelop the site. The site is designated for commercial or industrial use in the local plan, and is surrounded by residential development. The chemical company has been approached by a potential developer, who wishes to use the site as a supermarket. The developer's window of opportunity is limited, however, and a site is needed which is suitable for redevelopment within 18 months. The developer is offering the chemical company £1.5 million for a "clean" site with limited residual liability.

The development will comprise the supermarket, a children's play area, car parking space and a landscaped area.

Subsequent discussions suggest that the developer would be happy to accept a site with concentrations of heavy metals, cyanide and chlorinated solvents below clean up values designated in a risk assessment, provided that the Agency is happy with this too.

The site is frequently waterlogged, with perched water collecting near the surface. De watering may be required during any excavations. There are two HV electricity cables running through the site. There is no water supply on site.

### Reference

CIRIA (2001). *C540 - Remedial treatment for contaminated land - training pack*.  
Construction Industry Research and Information Association (CIRIA) publications, London.

<b>Contamination Related Objectives</b>	<b>Engineering Objectives</b>
<b>Management Objectives</b>	<b>Site Specific Objectives</b>

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