

Bath Vale Brookhouse Ln. Congleton

Customer:	Richborough Estates / Bovis Homes	Value:	£400k
	Waterloo House, Waterloo St., Birmingham B2 5TB	Contact:	Paul Campbell Director

Scope of Work

- Licenced asbestos removal
- Demolition of fabrication / finishing works
- Chlorinated solvent impacted soils and groundwater
- Industrial waste management
- Free product recovery
- Perched water management and volatilisation treatment
- Material recycling



Project Description



Richborough Estates acquired the 3.1Ha former fabrication and finishing works site known as "Bath Vale Works" in Congleton in 2005 and in conjunction with Bovis Homes, subsequently submitted proposals for a residential development. Part of the site was heavily contaminated by toxic chlorinated solvents used for metal-cleaning which had leaked from bulk storage tanks and had impacted the underlying aquifer. Remediation of these volatile and soluble solvents was an essential pre-requisite to the development of the site.



The UR team developed a remediation strategy to meet approved target concentrations for chlorinated solvents and their breakdown products in the aquifer were established by means of detailed soil, groundwater and soil vapour testing, surface flux monitoring and detailed quantitative risk assessment utilising vapour flow modelling into hypothetical buildings (houses and apartment blocks); solvent contaminated soils were excavated and placed in controlled indoor stockpiles and subject to composting methods over a period of months to assess the extent and feasibility of treatment and recovery of the soils.



Vapour risk modelling was used to inform the specification of gas venting and barrier systems within the buildings, resulting in regulatory approval and the implementation of the development by Bovis; the risk modelling approach developed for the site has since been used on other projects going forward; the soil treatment study demonstrated significant contaminant reduction but did not meet target in all areas, for reuse of the soils within the development, necessitating localised disposal.



Following licenced asbestos removal and site wide demolition and material recycling, extensive groundwater capture, free product recovery skimming and subsequent filtration and volatilisation was undertaken in conjunction with the soils treatment and re-engineering.

Targeted remedial treatment following a focussed strategy design process enabled delivery of the site for subsequent development within programme and budget constraints, fully supported by the planning and regulatory authorities.