Expert contractors in land & groundwater remediation

# CASE STUDY CS888

**PROJECT:** *In situ* Chemical Remediation of Soil and Groundwater Contaminated with Chlorinated Hydrocarbons

**CLIENT:** Industrial Manufacturer, North West Midlands

**DURATION:** Nine Months

**COST RANGE:** £100,000 to £250,000

**STATUS:** Completed and Validated

## WORKS

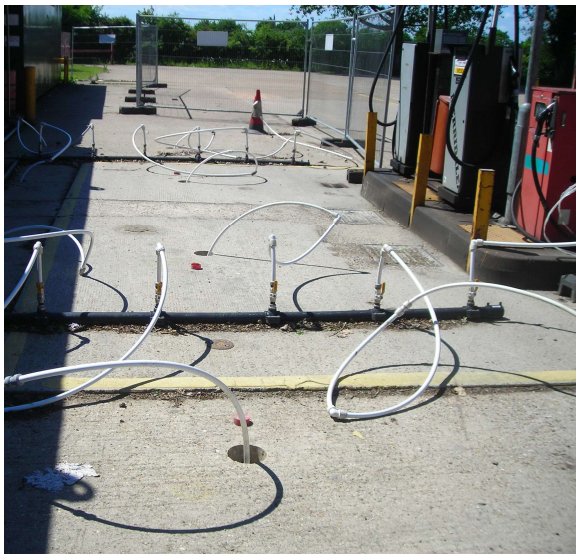
- Design of *in situ* remediation scheme involving consulting engineer and client.
- Provision of technical assistance and chemical treatment to soil.
- Project management, supervision and support in all site works.
- Routine monitoring to delineate contamination within the soil and groundwater for ongoing treatment.
- Provision and implementation of Environmental Permit and all associated legislative requirements

## SYNOPSIS

Soil and groundwater beneath an operational manufacturing facility was found to be contaminated with elevated levels of chlorinated hydrocarbons. Delineation of the plume indicated that substantially most of the contamination lay below factory buildings, which could not be closed.

TRM designed the remediation scheme whereby chemical amendments were mixed with water and directly injected into the ground in a planned grid pattern to five metres depth. The selected amendments promote microbial anaerobic degradation of the chlorinated hydrocarbons.

The injection, monitoring and re-injection works were undertaken over a period of approximately nine months and subsequent validation monitoring showed reduced chlorinated hydrocarbon contamination to levels within both the soil and groundwater to below 50mg/kg and 1µg/l, respectively, which proved acceptable to the Environment Agency.



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