

# Remediation

## Dual Phase Extraction - Acton

Ecologia Environmental Solutions were recently given instruction to undertake the remediation of soil and groundwater at a former factory site in Acton. The site is being re-developed for residential use and hydrocarbon contamination of the soil and groundwater was identified as being a risk.

The remediation system designed and manufactured in Kent by Ecologia and used a high vacuum system and vertical 'slurper' wells positioned in areas of the site where the consultant identified high levels of contamination. The slurper wells were drilled by Ecologia's in-house drilling division and facilitated the removal of free phase oils, contaminated groundwater and soil vapour from a single well with no down-hole pumps. The wells were drilled by our own drilling team and rig.

Each slurper well was connected to a high vacuum system which was fully automated and telemetrically controlled which allowed our staff to monitor the system each day, giving a high level of validation data, maintenance and rapid fault repair. The treatment system separated and treated the vapour phase before being discharged to atmosphere. The exhaust discharge was automatically monitored with a VOC detector and the system was capable of alerting the project manager by SMS and shut itself down if a VOC breakthrough was detected. The liquid phase was separated and oils collected in 200 litres drums, again Ecologia was automatically alerted by the system if a drum became full and required replacement. The water passed through a sequential filter before being discharged to sewer.

The project was undertaken over 6 months and over 3,000 litres of hydrocarbons were removed and the free phase layer was reduced to <1mm. Ecologia did not subcontract any part of the works providing surety of contract and timescale for the main contractor.

The remediation project was undertaken under the terms of Ecologia's mobile treatment licence (EAWML 10088).



Installation of the extraction wells by Ecologia's drilling division



Slurper Well Head



Containerised automated treatment system manufactured by Ecologia in Kent