Expert contractors in land & groundwater remediation

CASE STUDY CS798

PROJECT: *In situ* Remediation of Soil and Groundwater Contaminated by Diesel

CLIENT: Property Developer, West Midlands

DURATION: Nine Months

COST RANGE: £50,000 to £100,000

STATUS: Completed and Validated

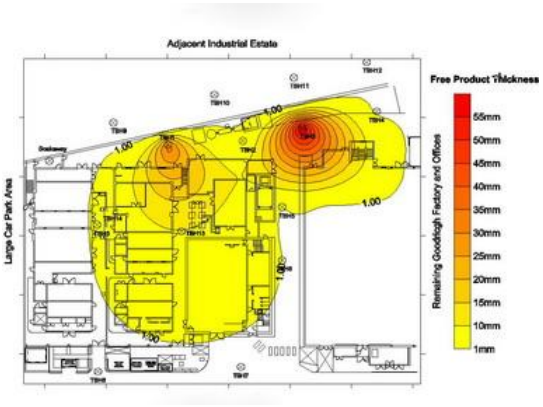
WORKS

- Design of *in situ* soil and groundwater remediation scheme.
- Installation and operation of treatment system to remediate diesel-impacted soil and groundwater.
- Routine monitoring to optimise conditions and ensure proper biodegradation of hydrocarbon contamination within the soil.
- Analysis and progress monitoring throughout the works.
- Liaison with client's consultant and provision of Environmental Permit.

SYNOPSIS

The former service station was acquired by the client for housing construction. Prior site investigation had indicated extensive contamination of soil and groundwater by petrol and diesel. The originally selected *in situ* system was configured to operate as a dual phase system. This allowed the controlled abstraction of free product and remediation of the dissolved phase contaminated groundwater and petroleum hydrocarbon vapour by GAC filtration. Groundwater sparging enhanced the physical stripping of the volatile contamination from the aqueous phase and promoted natural propagation of the hydrocarbon degrading bacteria.

Free phase LNAPL was removed from the groundwater at 5 metre depth as the first stage. Dual phase vapour extraction then removed the residual and dissolved phase material and hydrocarbon vapour from the soil mass. TPH contamination in the groundwater was reduced from 600mg/l to below 10µg/l.



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