



**Environmental
Management
Services**

Bioremediation Case Study

Domestic Kerosene Spill

We were commissioned by a loss adjusters to undertake a contaminated land site investigation and remediation project following a spill from a domestic kerosene tank.

The phase II site investigation found contamination had migrated underneath the footings of the property.

Bioremediation was needed in order to completely remove the contamination without affecting the foundations of the property.



Site Investigation

We were commissioned by a major loss adjusters to complete a remediation project following a 300 litre spill of kerosene from a domestic oil tank.

The first task was to identify the level of contamination. Hand excavations were dug at the source zone removing the initial contamination.

The plume was investigated using olfactory and VOC readings from a Photo Ionisation Detection Monitor. This identified that the plume had migrated underneath the footings of the property.

The chosen course of action was to use bioremediation to deal with the residual contamination.

Remediation

Three injection wells were installed laterally beneath the footings of the property to the boundary of the contamination plume.

Oil degrading bacteria, nutrients (phosphates, nitrates and potassium) and slow oxygen releasing compounds were then discharged to initiate and support the bioremediation.

Barrier technology and carbon filters were installed to prevent any mobilised contamination entering the initial excavation.

The bioremediation removed any oil which had migrated underneath the house. Validation samples were taken confirming all contamination had been removed.

The excavation was reinstated and the property was returned to its original condition.

