Title:	Effect of OSE(II)-Enhanced Soil Washing(OESW) for TPH -Contaminated Soil Remediation
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Abstract

The objectives of this study were to perform potentially suitable active agent that solubilize total petroleum hydrocarbon (TPH) present as contaminants and to evaluate the optimal range of process parameters that can increase the removal efficiency in OSE(II)-enhanced soil washing (OESW) pilot tests. Used experimental method for solubilisation of TPH by using OSE(II) was batch experiments. The active agent solution parameters for OESW pilot tests were solution concentration, solution pH in the OESW pilot tests. Based on the batch experiments, OSE(II) was proved as a suitable active agent that solubilizes TPH present as contaminants. The highest recovery (92-95 %) of the contaminants was obtained using a OSE(II) in the batch experiments. The pilot test results revealed that the optimum conditions were achieved with a OSE(II) surfactant solution concentration of 10 % (v/v), a

OSE(II) surfactant solution pH of 6.5-7.5 of OSE(II) active agent solution. The maximum removal of contaminants (88 %) was obtained when optimum conditions were simultaneously met in pilot-scale OESW operations. These results confirm the viability of OESW for treating TPH-contaminated soil.
