

**AN INNOVATIVE COMBINED REMEDY FOR THE TREATMENT OF HYDROCARBON  
CONTAMINATION AND SODICITY (SAR) IN THE CLOSURE OF DRILLING PITS**

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Increasing stringent standards for closure of drilling pits require reduction of hydrocarbon concentrations to very low levels as well as significant reduction of EC and SAR. Clearly the hydrocarbon and salinity/sodicity issues will require different approaches for remediation. Bioremediation of pit materials is problematic given the very low closure standards for hydrocarbons and the harsh environment for microorganisms. Reducing SAR with gypsum requires large amounts of water due to the low solubility of this calcium source while many of these pit closures are occurring in arid and semi-arid areas where fresh water is in short supply. This paper describes an innovative application of two compatible technologies to address these two issues and allow closure of these pits. Hydrocarbons are addressed using a novel *in situ* oxidation process while a different chemistry is employed to reduce sodicity without the use of large amounts of water. The paper will outline the chemical basis of this process and present an update on progress to date.

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