

In-situ Fenton Oxidation Field Demonstration (DoD ESTCP Grant)

Investigators:

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This 3-year study will commence in the spring of '06 and involves the collaboration of 4 different organizations. The objectives of the proposed demonstration are: 1) To apply rational process chemistry to improve the design and implementation of peroxygen ISCO at the demonstration level, including maximizing H₂O₂ and persulfate distribution, evaluating H₂O₂/persulfate stabilization procedures, and comparing increased H₂O₂ stability to the stability of persulfate; 2) To validate the effectiveness of peroxygen ISCO in the field by detailed assessment of contaminant loss, fate, and product formation, including the potential for concurrent and subsequent biological degradation of contaminants; and 3) To implement an ISCO optimization approach that involves multiple iterations between oxidant applications and performance monitoring.