

SUCCESSFUL OXYGEN DIFFUSION REMEDIATION OF A PETROLEUM RELEASE TETON NATIONAL PARK, WYOMING

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A release of gasoline occurred in the underground storage tank system supplying fuel to boats at the Colter Bay Marina Village at Grand Teton National Park, Jackson, Wyoming. New tanks were installed to replace the leaking tanks. Ground water in the immediate area was contaminated with BTEX to levels exceeding 5000 ppb. Primary environmental concerns included: (1) preventing petroleum constituents from reaching the pristine Jackson Lake and (2) remediating petroleum constituents in ground water of the source area.

Challenges in the selection of an appropriate ground water remediation system included the need to be successful in a low permeability, glacial till and secondly to find a low effort O&M technology that can operate over the very long, frigid winters common to Teton Park. Consultants for the project selected the iSOC™ (insitu Submerged Oxygen Curtain™) technology for the project because of its proven capabilities to meet these two challenges.

A total of 7 iSOC™ injection wells have been operating at the Colter Bay Marina site from September 2004 to the present. Five injection wells are located in the former leaky tank source area and two wells are located along the shore of Jackson Lake to provide an oxygen barrier.

Results to date indicate the following: (1) the iSOC™ system has created strongly oxidizing conditions through the entire ground water contamination area, (2) BTEX in the UST source area is being substantially reduced over time, (3) the oxygen barrier along the shore of Jackson Lake is successfully keeping petroleum constituents from reaching the Lake (4) the ground water remediation system is operating year round in spite of the long, harsh winter operating conditions and (5) in May, 2006 all site monitor wells were "non detect" for all petroleum constituents.

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