

UAA Professional Development Seminar Series

Increasing Reuse of Oil and Gas Produced Water through Integrated Management

Presented by Edward Peltier

Oil and gas production is a water-intensive industry, requiring significant freshwater inputs and generating large volumes of

return water. This produced water often has high salinity and contains a range of other compounds, including scale-forming and toxic metals, dispersed oil and dissolved hydrocarbons, naturally occurring radioactive materials, and production chemicals. At the same time, much U. S. oil production occurs in water-stressed areas, leading to an interest in produced water treatment and reclamation for beneficial uses. Produced water is best managed using an integrated approach that considers water use and waste generation at each step of oil and gas production, and looks at recovery, treatment, reuse, and disposal as interrelated activities. This presentation will explain the need for an integrated approach to produced water management and the potential for various reuse options.

Edward (Ted) Peltier is an Associate Professor in the Civil, Environmental and Architectural Engineering Department at the University of Kansas. He holds a B.S. degree in Chemical Engineering from Princeton University, and M.S. and Ph.D. degrees in Civil & Environmental Engineering from Northwestern University. He is currently the lead investigator for an NSF-funded joint research project between the University of Kansas and West Virginia University to study produced water management, treatment, and reuse.

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