

Evaluating Produced Water Reuse: Opportunities and Risk Management in the Oil and Gas Industry to Reach Sustainability

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Abstract : In the context of increasing global water scarcity, the reuse of produced water from oil production has emerged as a crucial strategy for sustainable water management. There is a feasibility of produced water reuse by using various treatments in different regions worldwide to show the potential applications of treated produced water, such as in agriculture and industrial processes. risk assessment framework can be employed to evaluate environmental, health, and operational risks associated with reuse. The findings underscore the importance of integrating advanced treatment technologies and stringent risk management practices to maximize the safe and effective reuse of produced water, providing reliable insights for the oil and gas industry.

Keywords : produced water, risk assessment, oil and gas, environmental impact

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