

FALL 2024 PETEROLEUM ENGINEERING SEMINAR SERIES

Class Venue: EN305 | November 20, 2024 | 4:30 - 5:20 p.m.

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Adam Haecker works in Houston as a Director of Geoscience for Milestone Carbon, a company dedicated to delivering CO₂ sequestration solutions. His research interests include supercritical CO₂ relative permeability, advances in MICP, organic shale petrophysics, and rock mechanics. Prior to Milestone, Adam worked as a petrophysicist for Battelle Memorial Institute, Continental Resources, Chesapeake Energy, and Cabot Oil and Gas (now Coterra), as well as Weatherford Wireline as a field engineer. Adam graduated from Texas A&M in 2007 with a B.S. in Geology. He served as the Vice President of Finance, Secretary and Administration for the international SPWLA (2021-2023) and as North America Regional Director 1 (2018-2020). Adam speaks English and conversational Japanese.



Petrophysics of CCUS: How is it different? How is it the same?

Carbon Capture Utilization and Sequestration (CCUS) Petrophysics has significant overlap with existing workflows used in oil and gas exploration, but CCUS also has key differences. In this presentation I will examine (1) the fluid properties that are very impactful, (2) How storage calculations differ from the standard OOIP and OGIP equations, (3) different storage methodologies, (4) A typical petrophysical workflow that one might use in CCUS and (5) finally special considerations for reservoir simulation. All these parameters are needed by the modern CCUS Petrophysicist to effectively evaluate if a reservoir is viable for sequestration. Petrophysics is at the center of CCUS evaluation. Many things that are critical to a successful permit can only be determined by detailed petrophysical work. This talk will follow some of the ideas discussed at the SPWLA Stavanger workshop on CCUS Petrophysics that was taught by Katy Larson¹, Neeraj Gupta¹, Erik Nickel² and Philip Ringrose³. 1, Battelle Memorial Institute; 2, Saskatchewan Energy and Resources; 3, Norwegian University of Science and Technology



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