

September 26, 2019

“Multi-well Case Study Using Real Time Target Optimization and Geosteering with AWD XRD, XRF, and Mass Spectrometry, Niobrara and Codell Formations, DJ Basin”

Abstract

Eleven wells in the DJ Basin were drilled utilizing acquired-while-drilling (AWD) Geochemistry in an effort to aid real-time geosteering in best target quality, to provide petrophysical characterization useful to completion design, and to identify geohazards and fluid compartmentalization.

The data collected from this effort profoundly improved the ability to geosteer in the best target consistently and was immediately relevant and incorporated into completion design. Geochemical signatures for subseismic faults and fractures were also detected, along with clear identification of stratigraphic location of the borehole. Mass spectrometry (MS), combined with collected thermal maturity data helped advance petroleum system mapping and understand well performance.

These methods were found to be lower risk and more cost effective to run than horizontal wireline logs, while providing detailed petrophysical characterization.

Our Presenter

Robert H. Sterling



Mr. Sterling serves as Senior Vice President Geosciences of Confluence Resources LP. Mr. Sterling has been Senior Geologist with Cirque Resources LP since its formation in 2007. He served as Division Geological Specialist with EOG Resources Inc. from 1994 to 2007 in Denver. Mr. Sterling also held positions as Vice President of Exploration for Nahama & Weagant Energy Company, District Geologist for Challenger Minerals, and Geologist with Argo Petroleum in California. Mr. Sterling has a B.S. degree in Geology from California State Polytechnic University, Pomona, and a M.S. degree in Geology from California State University, Los Angeles.

Anne Grau



Anne Grau is currently a reluctant Oklahoman working as a Geological Advisor for WPX Energy in Tulsa. The prior 25 years, Anne worked and resided in Denver Colorado where she raised a daughter and in her spare time worked for companies such as EOG Resources and Newfield to name a few. Anne Received her Bachelor's and Master's in Geology from Baylor University and a PhD in Geology from the Colorado School of Mines. She misses Colorado and says "HI" to all her former friends and colleagues.