

MGS Luncheon

Thursday, May 12th

11:45am – 1:15pm (talk starts at 12:15pm)

Join us **in-person at the Northern in Billings** (Speaker will be remote on Zoom), or from the comfort of your home **via Zoom**

RSVP to montanageologicalsociety@gmail.com

To join us at the Northern Hotel, RSVP by latest Friday May 6th!

If you prefer to join us on Zoom, RSVP by Wednesday May 11th to receive the Zoom link



SPEAKER: DR. BRUCE HART

WESTERN UNIVERSITY, ONTARIO, CANADA

Shale Facies Models: The Primary Control on Source-Rock ("Shale") Play Potential

Successful source-rock ("shale") plays have several key lithologic traits in common that are linked to depositional processes.

- They are organically enriched, and the organic matter is oil prone. Liquids production helps improve profitability, and thermal cracking of oil to gas creates overpressures that allow even some dry gas wells to produce at economic rates.
- They have relatively low clay contents and are enriched instead in biogenic silica and/or carbonate. As such, hydraulic fracture treatments (including proppant placement) are effective means for increasing surface area and enabling production.
- They were deposited over large areas. As such, there is running room to develop the factory-drilling operations that make these low-margin plays viable economically.

In this presentation I illustrate how patterns and processes of shale deposition 94 million years ago allowed the Cenomanian/Turonian Eagle Ford Formation of South Texas to become a resource play, whereas time-equivalent organic-rich rocks (Tuscaloosa Marine Shale, Second White Specks) did not.

Biography

Bruce Hart is an Adjunct Professor at Western University in Ontario, Canada. He previously held positions with Equinor/Statoil, ConocoPhillips, McGill University, New Mexico Tech, Penn State, and the Geological Survey of Canada. During that time, he worked as a researcher, technical specialist and explorationist for shale plays, tight-gas sandstones, tight-oil plays, fractured carbonates and other unconventional targets on six continents. He toured as the AAPG/SEG Distinguished Lecturer in 2009–2010 and 2016–2017.