

January Section Meeting: The Role of Oil Shale In The Future of Hydrocarbon Production

Global oil shale resources are massive, comprising over 2.8 trillion barrels of oil equivalents – more than twice as much oil as has been produced from conventional fields since 1859. High oil prices and increased emphasis on domestic energy development have brought unconventional hydrocarbon resources to the forefront in industrial exploration and public debate. The largest known oil shale resources in the world occur in western Colorado and adjacent Utah and Wyoming. Colorado oil shale resources are thick (~300 m) and very rich, with a real energy density up to 1.3 million barrels per acre, comparing favorably other energy sources such as Wyoming coal (500,000 bbls/acre) and Canadian oil sands (100,000 bbls/acre) and commonly thinner, less energy dense conventional oil reservoirs.

Current production of shale oil is limited to surface processing of mined resources. New technology for production and impact mitigation suggest the time may have arrived for shale oil development, although substantial development will be required to achieve >1,000,000 bbl/day production. Various private companies have proposed in

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January Section Meeting

Topic: The Role of Oil Shale In The Future of Hydrocarbon Production

Speaker: Jeremy Boak, Project Manager for the Colorado Energy Research Institute at the Colorado School of Mines

Date: Tuesday, January 15th

Time: 6:00 – 6:45 Social
6:45 – 7:45 Dinner
7:45 – 8:45 Presentation

Location: PPA Event Center,
2105 Decatur Street, Denver

Menu: Stir Fry strips of beef or chicken stir-fried with fresh vegetables & garlic sauce. Served with fluffy jasmine rice, crispy egg rolls & a spinach, orange & toasted sliced almond salad. Assorted desserts.

Cost: Members: \$20
(w/RSVP)* Non-Members: \$25
Students & Unemployed: \$10

Please RSVP by **Friday, January 11th** (early RSVPs are greatly appreciated!) indicating your name, phone number, and number of attendees. Please RSVP to Craig Turchi by voicemail at 303-874-8285 or email at rockyaiche@yahoo.com.

*Add \$5 for attending meeting without RSVP

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situ (subsurface) conversion of oil shale kerogen into light oil. Techniques include using downhole electrical heaters (Shell), conductively propped rock fracture networks (ExxonMobil), injection of CO₂ (Chevron) or closed loop fluid heating (EGL Resources). It is clear that surface mining and large-scale water use to produce shale oil have an uncertain future in the United States. In addition, oil shale production may release >100,000,000 tons annually of CO₂ apart from the burning of the resultant fuel. The future for commercial oil shale will depend on development of CO₂ capture and sequestration technology to ensure zero emissions from the production sites. Dr. Jerry Boak will discuss these issues and more in an overview of Oil Shale's future role in the production of liquid fuels.

Jeremy Boak is the Project Manager for the Colorado Energy Research Institute at the Colorado School of Mines, and served as the Chair of the 26th and 27th Oil Shale Symposia, held at Mines in 2006 and 2007, and attended by more than 300 people each, from twenty countries around the globe. As Project Manager, he has been responsible for Energy Workforce Development and Energy Outreach work funded by the Colorado legislature. He also prepared a proposal to five major oil companies for the Center for Oil Shale Technology and Research (COSTAR), which is expected to start at Mines in 2008. Before coming to Mines in 2006, he was a project manager at Los Alamos National Laboratory for eleven years, working on projects in environmental restoration, pollution prevention, environmental technology development, nuclear materials management, and recovery of sealed radioactive sources. Before Los

Alamos, he was project manager for performance assessment of the deep geologic disposal of spent nuclear fuel at Yucca Mountain in Las Vegas, Nevada. He also carried out geologic investigations for exploration, extension, development, and equity determination for ARCO Oil and Gas, Inc. in Alaska, Colorado, and California. Dr. Boak received his Ph. D. degree in Geological Sciences from Harvard University in 1983.

NEW MEXICO CORNER

JOIN US FOR OUR NEXT MEETING

- Topic: Synthesis and Activity of Palladium Nanoparticle Catalysts
- Speaker: Patrick D. Burton
Chemical and Nuclear Engineering, University of New Mexico
- Date: Wednesday, February 8th
- Time: 5:30 p.m.
- Location: Flying Star, downtown
723 Silver Avenue SW
- RSVP: To Kerrie Greenfelder at GreenfelderKL@cdm.com by February 4th, 2008

If you'd like to volunteer to speak at a future meeting or if you have any meeting/activity ideas, please let me know! Participation in the Albuquerque area has increased over the last year and I'd like to keep this trend going! Again, a warm "Thank You" to all of the AIChE-NM members for making our little sub-section a great one! See you soon!

Kerrie Greenfelder, New Mexico Liaison
GreenfelderKL@cdm.com

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AIChE Meetings

2008

Jan 20-23	SBE Int'l Conf. On Stem Cell Eng. Coronado, CA
Apr 6-10	Spring Nat'l Conf. New Orleans, LA
June 22-25	2008 Process Development Symposium Hancock, MA
July 22-24	SBE's 4 th Int'l Conference on Bioengineering and Nanotechnology Dublin, Ireland
Sept 7-11	2008 Ammonia Symposium San Antonio, TX
Nov 16-21	AIChE Annual Mtg. Philadelphia, PA

For further information, contact National AIChE.

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The objectives of AIChE are to advance chemical engineering in theory and practice, to maintain a high professional standard among its members, and to serve society, particularly where chemical, engineering can contribute to the public interest.

Rocky Mountain AIChE News Publication Schedule

February 2008 issue

Articles due Wednesday, February 6th

Publish on Friday, February 8th

Meeting on Tuesday, February 19th

MEETING SCHEDULE

The Rocky Mountain District of AIChE generally meets the third Tuesday of every month, September through November and January through May.

Rocky Mountain AIChE News
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