

SOCIETY OF PETROLEUM ENGINEERS

Wyoming Petroleum Section
Marron Bingle-Davis, Secretary
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Section Website For Latest News:
<http://wyoming.spe.org/>

2019-2020 Wyoming Petroleum Section				
Section Chairman	Dave Chase	BLM	261-7685	dchase@blm.gov
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UPCOMING AREA MEETINGS

WYOMING GEOLOGICAL ASSOCIATION – All meetings at the Clarion Inn (see Calendar Page). Lunch Buffet served from 11:15 to 12:00 at a cost of \$16.00. Contact the WGA office at 237-0027 or wygeology@gmail.com for more information or to make reservations. **Reservations are mandatory and are due Wednesdays by Noon for that week's talk.**

February 7, 2020: Rob Hill – Wyoming Association for Career and Technical Education – *Wyoming Career and Technical Education Impacts Your Workforce*

February 14, 2020: Speaker and Alternate Venue will be TBD

February 21, 2020 (SPE): B. Todd Hoffman – Montana Tech – *Enhanced Oil Recovery (EOR) for Unconventional Reservoirs: The Next Big Thing?*

February 28, 2020: Dr. Jon Branting – University of Wyoming CEPWM – *Produced water grant update*

UPCOMING MONTHLY PRESENTATIONS FOR THE SPE WYOMING PETROLEUM SECTION

February SPE Meeting: B. Todd Hoffman – Montana Tech – Enhanced Oil Recovery (EOR) for Unconventional Reservoirs: The Next Big Thing?

March SPE Meeting: Possible 2nd Annual Ski Day – Stay tuned for more information





Society of Petroleum Engineers

Wyoming Petroleum Section February 2020 Newsletter

<http://wyoming.spe.org/>



When: February 21, 2020
Where: Clarion Inn at Platte River
Time: 11:15 AM (\$16.00 for buffet lunch)

RSVPs are now mandatory for attendance and to streamline this process, please notify Brianna at the WGA office at 237-0027 or wygeology@gmail.com by Wednesday, February 19, 2020 if you plan to attend.



Event: B. Todd Hoffman – Montana Tech – Enhanced Oil Recovery (EOR) for Unconventional Reservoirs: The Next Big Thing?

BIOGRAPHY:

Todd Hoffman is an Associate Professor in the Petroleum Engineering Department at Montana Tech. He teaches classes on Reservoir Simulation, Enhanced Oil Recovery, and Unconventional Reservoirs. Prior to that, he was a reservoir engineering consultant to the oil and gas industry. Todd has worked on reservoir models for more than 30 fields on six continents, and has published over 50 technical papers. His research involves improved recovery for conventional and unconventional reservoirs, fractured reservoir modeling and history matching. Todd received his B.S. in petroleum engineering from Montana Tech and his M.S. and Ph.D. in petroleum engineering from Stanford University.



ABSTRACT:

Unconventional reservoirs have had tremendous success over the last decade due to technical advances including long horizontal wells and multi-stage hydraulic fracturing; however, their potential may be even higher. There are trillions of barrels of oil in these resources, and while wells start out at high rates, they decline quickly and primary recovery factors are low, often in the single digits. This clearly indicates a need for some form of enhanced oil recovery (EOR) for these types of reservoirs.

In this presentation, the efforts to implement EOR in unconventional reservoirs will be examined in full detail. A number of different injection fluids have been proposed including miscible gas, water and surfactants. Early work focused on modeling and lab studies, and this provided a base of knowledge that was leveraged to carry out pilot field studies. Pilots have been implemented in at least four basins, and the Bakken and Eagle Ford have both had multiple field trials. Huff-n-puff natural gas injection has been shown to be very successful in the Eagle Ford, and today, large-scale field development is occurring there.

Because most of the field trials have been completed in North America, the examples presented are mainly from there; however, as these techniques are reproduced in other basins, the worldwide potential is enormous, and that potential also is discussed in the presentation.

While much has been achieved over the last decade in unconventional reservoirs, implementing EOR in these types of reservoirs will likely bring about even greater success.





CALENDAR OF EVENTS and NEWS WYOMING PETROLEUM SECTION



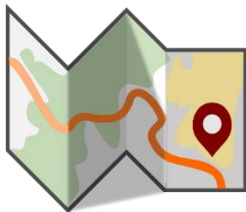
Due to our excellent participation in past continuing education events, we will continue to offer these as they become available. Our web address is <http://wyoming.spe.org>

The SPE Wyoming Petroleum Section has sent out letters requesting scholarship sponsors for the 2020 year. Please consider helping out these deserving students in their academic pursuits. Scholarships will be awarded in the Spring of 2020. If you need further information please contact Sabrina Hamner at: sabrina.hamner@wyo.gov



We appreciate your patience as we move meeting locations, which will now be held at the Clarion Inn at Platte River (Old Parkway Plaza).

**CLARION INN AT PLATTE RIVER
123 WEST E STREET
CASPER, WY 82601**





****Members - Reservations are Mandatory for Meetings ****

Brianna McFarland with WGA is taking phone reservations for meetings at 307-237-0027 or by email at wygeology@gmail.com. RSVP is now mandatory for attendance before noon two days before the talk so please take a little extra time and call or email so that an accurate headcount can be given to the venue for their meal preparation. This also helps us to get scheduled into a meeting room that is adequately sized for our meetings. Your help in this matter is greatly appreciated.