

**The Society of Petroleum Evaluation Engineers  
SPEE Denver Chapter announces its February Luncheon Meeting.**

(Members and Guests are cordially invited to attend.)

**Wednesday, February 8, 2017**

**Dr. He Zhang**

Sr. Petroleum Engineer, Ryder Scott Petroleum Consultants



**Will be speaking on:**

**A New Empirical Analysis Technique for Shale Reservoirs**

**LUNCHEON STARTS AT 11:30 A.M.**

(A plate lunch will be served.)

**PRESENTATION BEGINS AT NOON**

**The Denver Athletic Club**

**3<sup>rd</sup> Floor, The New Petroleum Club Room  
1325 Glenarm Place (14<sup>th</sup> and Glenarm) Denver CO 80204  
Parking flat rate \$7.00 on space available basis**

**Cost: \$25.00 per Person**

Special pricing of \$25 continued into 2017. Normally \$35.

(Credit Card, Cash or Check made out to 'SPEE Denver Chapter')

**Please RSVP by Noon Monday, February 6, 2017**

**RSVP Registration Options:**

- 1.) **RSVP by email to Mike Flanigan SPEE Treasurer at [denspee@yahoo.com](mailto:denspee@yahoo.com) to sign up and then pay by cash or check at the door. Please provide a name and company for each reservation. Checks should be made out to 'SPEE Denver Chapter'.**

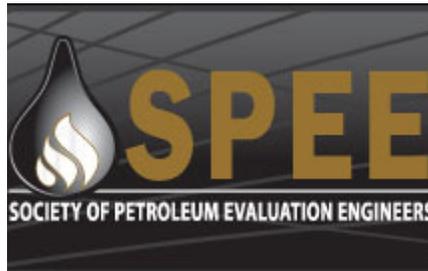
**OR**

## 2.) RSVP and simultaneously pay by credit card online at

<https://secure.spee.org/civicrm/event/info?reset=1&id=125>. If this link does not work, alternatively go to [www.spee.org](http://www.spee.org) then select 'Local Chapters', then 'Denver', then 'Register Now'.

**Abstract:** In the original Arps paper, the  $b$ -factor of the hyperbolic equation was assumed to be a constant and limited to values less than or equal to  $1.0$ . However, many literature papers and field observations have shown that the  $b$ -factor changes with time in shale wells and, in many cases, can be well above  $1.0$ , especially during the transient flow period. As a result, evaluators have modified the original DCA to incorporate a  $b$ -factor larger than  $1.0$  and a minimum exponential decline rate ( $D_{\min}$ ) at the late-time life in shale production predictions. Zhang, Rietz, and Lee, *et. al* presented the Extended Exponential Decline Curve Analysis (EEDCA) in 2015 as an alternative method with advantages. This presentation will further discuss the transient  $b$ -factor effect and how to calculate the value of  $D_{\min}$ . (Reference is made to SPE paper SPE-175016-MS, [An Empirical Extended Exponential Decline Curve for Shale Reservoirs](#), Zhang, Rietz, Cagle, and Lee presented at the SPE ATCE 9/2015, Houston.)

**Speaker Bio.:** He Zhang is a senior petroleum engineer at Ryder Scott Petroleum Consultants, with his expertise in oil and gas reserve evaluation. Previously he worked for Schlumberger. Zhang has published over 40 technical papers, and he serves as an associate editor and reviewer for multiple journals. He has also held chair position or served as a committee member at multiple international conferences including SPE Annual Technical Conference & Exhibition. Zhang is currently also an adjunct in teaching petroleum engineering courses at University of Houston –Victoria. Zhang has BS degrees in Chemistry and Computer Application from University of Science and Technology of China, and a PhD degree in petroleum engineering from Texas A&M University. He is a registered Professional Engineer in the State of Texas, an SPE Certified Petroleum Engineer, and an associate member of the Society of Petroleum Evaluation Engineers (SPEE).



**About SPEE:** <http://www.spee.org> SPEE was formed in 1962 as a professional, non-profit organization bringing together specialists in the evaluation of petroleum and natural gas properties. SPEE continues today to be strongly committed to providing educational and other services to its members and to the oil and gas industry, and to promoting the profession of petroleum evaluation engineering.

### For additional information, please contact:

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### For event registration issues, please contact:

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