Join Us May 20 for a Joint AADE and SPE Meeting on 'Solving the Mystery of Low ROP in Deep Wells'

Join us May 20 in Lafayette at the Petroleum Club for a special joint AADE and SPE presentation by Roy Ledgerwood on "Solving the Mystery of Low ROP in Deep Wells". Register today to attend!

Reservations made before noon on Friday, May 17 are $20, and walk-ins will be $25.

RESERVE YOUR SEAT TODAY! CLICK HERE!
If you plan to pay with your Petroleum Club account, please select Pay at Door.

You may also reserve your seat by email or call 337-266-8211.

PLEASE NOTE: Those who would like to request a continuing education certification, please sign up online.

DATE/TIME/PLACE

Registration begins at 11 a.m. May 20, 2019, at the Petroleum Club of Lafayette. We start serving at 11:30 a.m.

PRESENTER

Roy Ledgerwood will discuss “Solving the Mystery of Low ROP in Deep Wells”

RESERVATIONS ENCOURAGED

Add event to calendar

ABOUT THE SPEAKER

About the Speaker

Roy Ledgerwood earned a BS in Mechanical Engineering from Texas Tech University in 1975 and began working for Hughes Tool Company Research. Bob Cunningham, one of the pioneers in oil-field drilling mechanics, mentored him. In 1987, Ledgerwood earned an MS in Mechanical Engineering from Rice University where he studied drilling mechanics with Dr. John Cheatham, another pioneer in the field. When Hughes Tool Company built its Full-scale High Pressure Drilling Simulator—a test facility in which may stress rock up to 15,000 psi and test bits as large as 12 ¼”—Ledgerwood was the first
supervisor of the facility. He designed and performed unique tests to show that crushed rock detritus in a borehole has a strength on the same order of magnitude as the original rock at the instant it is created. Ledgerwood has collaborated with other similar laboratories in Salt Lake City, Tulsa, and Pau, France in joint-industry and proprietary tests. In addition to testing, Ledgerwood has modeled the drilling process with both Finite Element Analysis and Discrete Element Analysis. These mathematical models show that most of the energy expended while drilling a deep well is dissipated not in failing the rock, but in extruding crushed rock detritus. He holds 14 patents and is the author of 23 technical papers.

Abstract

Rocks deep in the earth have unique and enigmatic material properties due to the confining pressures in the earth. Confining pressure increases rock strength and changes rock from a brittle to a ductile material. Humans tend to think of rock as brittle, since all of our direct experience with rock is at atmospheric pressure. But as wells were drilled deeper into the earth, it became apparent that the rock drilled in oilfield wells yielded much lower penetration rates than rocks near the surface. About seventy years ago, researchers in drilling mechanics began to study this by building high-pressure test facilities in which rock could be confined and drilled. Even with these new test machines, researchers had to hypothesize what was happening to the rock at the bottom of the borehole because they could not observe the drilling process first-hand. Though they understood that rocks under confining pressure become ductile, they continued to form hypotheses based on brittle failure mechanics. This presentation reviews the detective-story-history of model development to explain low rate of penetration in deep boreholes. It then describes our current industry understanding of rock failure in a borehole, which includes a significant role played by crushed rock detritus. Current challenges facing the drilling mechanics community are identified. This presentation constitutes a plea for continued research in this area.

CLICK HERE TO RESERVE YOUR SEAT
The 5th Annual AADE Fin Feather Fur Food Festival was held Thursday, April 18 at Blackham Coliseum in Lafayette. Thanks to all who participated in this year’s AADE F5 Bon Temps. It was a great evening and we appreciate your ongoing support.

CHECK THIS OUT! F5 Bon Temps photo galleries, 2019 cookbook and 2019 winners!
Congressman Clay Higgins Presented at the April AADE General Meeting

Congressman Clay Higgins addressed a full house at the April AADE General
Meeting at the Petroleum Club in Lafayette. Special thanks to Higgins for taking the time to speak to our group on Drilling Towards Louisiana’s Future and for providing an engaging and entertaining take on the challenges the oil and gas industry in Louisiana is facing.

Following the meeting, Higgins, center, posed with AADE steering committee member Alden Sonnier, from left; AADE President Kristy Bonner, second from left; AADE Vice President Jude Boudreaux, second from right; and AADE steering committee member Rick Voth, far right.

**AADE Lafayette Chapter Makes $3,000 Donation to LSU PERTT Lab Repairs and Upgrades**
AADE 2018-2019 Officers

- President: Kristy Bonner, Foster Marketing
- First Vice President: Jude Boudreaux, Offshore Energy Services, Inc.
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- Director Emeritus: Jamie Crosby; Doug Keller; and Al Wambsgans, DC International
ACT NOW IF YOU HAVEN'T ALREADY RENEWED!

WE'RE A BARGAIN:
Where else can you get so much for just $25? As our costs have gone up, we have remained committed to keeping our monthly meeting costs down. By supporting AADE through your paid membership, you are helping us make it possible to continue to bring in engaging and informative industry speakers while keeping your cost to attend and enjoy lunch low.

AADE has kept its annual dues low to ensure its members can continue to participate. Your AADE membership is worth continuing!

The American Association of Drilling Engineers offers a forum for the exchange of information among its members, student members and others in the industry. AADE
Chapters host monthly general membership luncheons where programs are presented by knowledgeable industry leaders on key topics in the oil and gas industry and drilling sector. Annual membership in the AADE Lafayette Chapter is $25 per person.

Your AADE membership helps you stay informed, connected to a strong network of professionals, provides continuing education and offers an opportunity to expand your current list of clients.

Come join us!