AGENDA - DAY 1 Wednesday, February 23, 2022

7:30 - 8:30 A.M. Breakfast & Check-In

- 8:30 A.M. Welcome & Setting the Stage for Day 1 Jim Woodcock, Permian Basin Water In Energy Conference Chair *Title Sponsor Remarks* John Ciolek, NGL Water Solutions
- 9:00 A.M. **Water Plans on State & Private Lands** Moderator: Richard Brantley, University Lands Panelists: Kelly Bennett, B3 Insight Mark Henkhaus, Permian Regulatory Solutions Robert Crain, Texas Pacific Water Resources

A discussion including review of data, achievements, challenges and opportunities.

- 9:40 A.M. Break with coffee and snacks available
- 10:00 A.M. *Exploring New Opportunities for Handling Produced Water* Austin Beam, ConocoPhillips

10:30 A.M. Sourcing Entities: Advantages and Challenges

Moderator: Brent Halldorson, Redox Systems Panelists: Ben Spinks, Highline Water Services Matt Gabriel, XRI Ben Warden, Diamondback Energy Wes Finch, Commodore Midstream

A panel of Permian water experts will discuss issues involved with securing and delivering water for completions. Topics will include public perception, ESG mandates, seismicity, weather impacts, and dealing with the changing nature of frac schedules. The panel will also examine methods for potentially increasing water system efficiency, availability, sustainability, and reliability.

11:10 A.M. Commercial Use Panel

Moderator: Doug White, NGL Panelists: Amanda Brock, Aris Jon VandenBrand, Western Midstream

The leading water midstream companies Western Midstream, Aris Water Solutions, and NGL Water Solutions will discuss and update attendees on produced water reuse and recycling, and induced seismicity in the Permian Basin. Updates include each company's approach to recycling and reuse of produced water, thoughts on induced seismicity, and how water midstream companies are actively addressing the challenge to minimize impacts on the public and industry.

11:45 A.M. Transition to Keynote Lunch

Buffet lunch in adjoining conference area

12:00 P.M. Keynote Lunch

Jim Woodcock, Permian Basin Water In Energy Conference Chair Senator Charles Perry, Texas Senate District 28

1:15 P.M. Reservoir Depressuring, Produced Fluid Volumes and Injection

Steve Melzer, Melzer Consulting Rob Bruant, B3 Insight

Rob Bruant will discuss the evolution and current state of water management in the Permian Basin, including implications for subsurface pressure and triggered seismicity. Additionally, Rob will address the points of intersection between water injection and carbon capture, utilization, and storage (CCUS).

1:45 P.M. Waste Waters and Waste Carbon; Brothers and Sisters

Steve Melzer, Melzer Consulting Matt Fry, Great Plains Institute and Carbon Capture Coalition

An outline of the fast changing incentives to encourage large volume CO2 emissions capture and reservoir storage. The speakers will relate the experiences of our oil/gas industry with large volume water injection and disposal as it forms the basis for the understanding of similarities and differences expected in large volume CO2 injection and disposal.

2:25 P.M. Break with coffee and snacks available

2:45 P.M. Impact of ESG on Business & Investment Strategy

Moderator: Steven Beach, The University of Texas Permian Basin Panelists: Ian MacPherson, Piper Sandler Matt Saverin, The University of Texas Investment Management Company James West, Evercore ISI Tracee Bentley, Permian Strategic Partnership

A discussion of how investor and regulatory emphasis on Environmental, Social, and Governance factors influences access to financing in the Energy industry; focusing on industry partner attention to environmental factors and potential tradeoffs.

- 3:35 P.M. *Climate Change, Federal Policy, & the Oil & Gas Industry* Ray Perryman, The Perryman Group
- 4:05 P.M. *Alternative Uses for Produced Water* Jake Hendricks, NGL

NGL will present its perspective on alternative uses for produced water. Topics include mineral extraction, desalination, energy uses, and how these can potentially be intertwined.

4:30 P.M. Closing Remarks for Day 1

4:45 P.M. Break and travel to The Petroleum Club

6:00 P.M. Cocktail Hour

7:00 - 9:00 P.M. Keynote Dinner

Jim Woodcock, Permian Basin Water In Energy Conference Chair Tatum Hubbard, The University of Texas Permian Basin Kirk Edwards, Latigo Petroleum Christi Craddick, Texas Railroad Commission

AGENDA - DAY 2 Thursday, February 24, 2022

7:30 - 8:30 A.M. Breakfast & Check-In

8:30 A.M. Welcome & Setting the Stage for Day 2 Jim Woodcock, Permian Basin Water In Energy Conference Chair Student Poster Competition Scholarship Awards & Sponsor Remarks Steve Pruett, Elevation Resources

8:45 A.M. Emerging Issues in Off-field Reuse of Treated Produced Water

Moderator: Matthias Sayer, NGL Panelists: Dan Mueller, Environmental Defense Fund Dave Ross, Troutman Sanders James Rosenblum, Colorado School of Mines Deborah Dixon, New Mexico Produced Water Research Consortium Fellow

Efforts to achieve a reality where meaningful volumes of treated produced water are able to be safely used in offfield applications continue in New Mexico, Texas, Colorado, Wyoming, etc. Meanwhile, these same states are managing growing water stress and national voices are pressing forward with water reuse campaigns. With an eye toward water quality considerations, the panel will discuss challenges and opportunities standing between where we are today and a more robust reuse economy.

9:30 A.M. *Implications of Operator Liability* Paul Tough, McElroy, Sullivan, Miller & Weber, LLP Adam Friedman, McElroy, Sullivan, Miller & Weber, LLP

A discussion on induced seismicity and potential liability.

- 10:05 A.M. Break with coffee and snacks available
- 10:20 A.M. **Comparative Land Use & Externalities of Gas, Nuclear, Wind & Solar Power Generation** Michael Young, The University of Texas Bureau of Economic Geology

^{10:50 A.M.} **Permian Basin Seismicity and Insights Gained from Studies of the Fort Worth Basin, Texas** Heather DeShon, Southern Methodist University

A decade of research on wastewater injection-induced events in the Fort Worth basin (FWB) of north Texas provides significant insights in the causal mechanisms and data necessary to mitigate these earthquakes. There, reactivated faults rooted in the crystalline basement appear to respond to the cumulative history of wastewater injection and fluid production, and the commensurate evolution of pore fluid pressure changes up to 10s of kilometers. This presentation provides an overview of the current research regarding induced earthquakes in Texas and places results in context with the recent earthquake sequences in the Permian Basin, where both wastewater injection and hydrofracking appear to trigger events.

- 11:35 A.M. *Impact of Water Use in Oil & Gas in Texas* Todd Staples, Texas Oil & Gas Association
- 12:00 P.M. **Transition to Keynote Lunch** Buffet lunch in adjoining conference area
- 12:15 P.M. **Keynote Lunch and Joint February Meeting with PBPA** Jim Woodcock, Permian Basin Water In Energy Conference Chair Scott Kidwell, ConocoPhillips Ben Shepperd, Permian Basin Petroleum Association

1:45 P.M. **Strategies and Opportunities for Water Reuse** Moderator: Joe Niederhofer, Rattler: A Division of Diamondback Panelists: Dennis Lithgow, Pioneer Water Management Jason Jennaro, Breakwater

Jared Blong, Octane Energy

A discussion and perspectives of public and privately held companies on the strategies they use for the management of water in the Permian Basin.

- ^{2:30 P.M.} Seismicity in the Permian Basin: Industry and Regulatory Engagement to Address Seismicity Cody Comiskey, Chevron
- 3:00 P.M. Wrap-Up & Transition to Continuing Education

3:15 - 4:15 P.M. Continuing Education: Ethics

Michele Harmon, The University of Texas Permian Basin Max Wright, Shafer, Davis, O'Leary and Stoker, P.C. R. Wayne Counts, The University of Texas Permian Basin

The Permian Basin Water In Energy Conference is approved for 7 RL, RPL, or CPL recertification credits and 1 Ethics credit, for a total of 8 CEUs by the AAPL. Attendees will need to submit an affidavit of attendance to receive the credit. The affidavit of attendance form will be available at the registration table. It's also available on the website waterinenergy.com under the Agenda tab.