

DAY 1 – April 19, 2022

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8:15 – 8:30	Opening Remarks – Conference Chairs: Neil Trotter (Chevron) and Ahmed Amer (Newpark Fluids Systems)		
8:30 – 9:30	KEYNOTE – Richard Spears , Managing Director , Spears & Associates “How Extreme Financial Discipline Impacts Drilling Activity in 2022 and 2023”		
9:30 – 10:00	BREAK - Exhibits Open		
	Salon A	Salon B	Salon C
10:00 – noon	ESG – Session Chairs: David Horton (Schlumberger) and Les Skinner (Consultant)	High Temperature Fluids – Session Chairs: Paul Scott (ConocoPhillips) and Jim Friedheim (Consultant)	Digital Solutions – Session Chairs: John Oliver (Petroconnex) and Mario Bouguetta (M-I SWACO)
10:00 – 10:30	Developing the Origin of Raw Materials to Achieve Environmentally Responsible Products Without Sacrificing Performance – Charles Landis and Tim Haggerty (Integrity); Mark Luyster and Kim Tresco (TBC-Brinadd). [040]*	Breakthrough Liquid Fluid Loss Control Agent in Oil-Based Mud Improved HPHT Fluid Loss by 40% Across Extended Reach Wells – Tulio Olivares-Antunez, and Waleed Al Zahrani (Saudi Aramco) Ahmed ElBatran and Sunil Sharma (M-I SWACO). [062]	Digital Twins for Automated Treatment of Drilling Fluids – Mehrdad Shirangi, Reza Ettehadi, Charles Thompson, and Edward Furlong (Baker Hughes). [025]
10:30 – 11:00	Sustainable Fluid Solutions Facilitate the Energy Transition Through Delivery of Efficiencies in Well Construction and New Levels of Environmental Performance – Vance Smith, Pawilai Hallmark, Brittany Granger, Kassie Harris, Chris Detiveaux, Alessandro Cascone, and Stephen Williams (Newpark Fluids Systems). [075]	Statistical Analysis of Drilling Fluid Heat Transfer in HTHP Well in the Gulf of Mexico – Felipe Quissak and Juan Espinoza (Baker Hughes). [077]	Bringing Drilling Fluids into the Digital Era – Katherine Price Hoelscher, Ethan Peterson, and Caleb Rabon (M-I SWACO). [079]
11:00 – 11:30	Drilling and Drilling Fluid Strategies to Minimize Impact on Local Communities – Dean Madrid, Joshua Hendrickson, and Matthew Offenbacher (AES Drilling Fluids). [035]	New Rheological Duo System for HTHP Drilling – Brett Cramer and Rick Bennett (BYK). [021]	Unlocking Performance Advancements Using State of the Art Digital Technologies – Ahmed Amer, Travis Vordick, Bill Alsobrook, Gabriel Azzarelli and Fahad Zia, (Newpark Fluids Systems). [044]
11:30 – 12:00	Advancement in Friction Reducer Development with an ESG Focus – Zoraida Vázquez, Clayton Smith, and Andrew Babey (Newpark Fluids Systems). [080]	Targeted Improvements in Chemistry of Common Fluid Additives Increase Temperature Stability of Non-Aqueous Drilling Fluids – Dimitri Khramov and Bala Panamarathupalayam (Schlumberger); Evgeny Barmatov, (Schlumberger Cambridge Research). [054]	Improved Understanding of Gas Influx Behaviors During Riser Gas Events: A Data Assimilation Approach – Chen Wei and Yuanhang Chen (Louisiana State University). [058]
12:00 – 1:15	LUNCH & Hall of Fame Presentations: Class of 2022		
	Glen Benge George E. King Larry J. Remont	Lindsay J. Fraser Hallan N. Marsh Christopher A. Sawdon	

* #000 refers to the paper number. The full paper number is AADE-22-FTCE-XXX where XXX refers to the #000.

Day 1 - Afternoon

1:30 – 3:00	Cementing – Session Chairs: Cory Arceneaux (Chevron) and Brittany Granger (Newpark Fluids Systems)	Geothermal Fluids – Session Chairs: Eric van Oort (University of Texas) and Saleh Haidary (Saudi Aramco)	Student Contest
1:30 – 2:00	Performance Testing of Cement Defoamers – Allen Kelley, Kristina Fontenot, and Cornell Stanciu (Sasol). [042]	Latest Developments in Geothermal Drilling & the Path to Geothermal Anywhere – Eric van Oort (University of Texas at Austin)	
2:00 – 2:30	Distribution of Stresses to Improve Mechanical Properties of the Oil Well Cement – Hasmukh Patel, Roland Martinez and Kenneth Johnson (Aramco Americas). [065]	Geothermal Technologies and Drilling Fluids: New Opportunities and Applications – Matthew Offenbacher (AES Drilling Fluids); Josh Nordquist (Ormat Technologies). [047]	
2:30 – 3:00	Cement Spacer Technology Restores and Maintains Circulation in a Complex Casing Drilling Application – Cristian Aramayo and Carlos Martinez (Pan American Energy); Mario Armella, Roberto Arroyo, and Walter Mamani (Servicios Especiales San Antonio); Francisco Bermudez and Jené Rockwood (Impact Fluid Solutions). [087]	Evaluate the Sealing Efficiency of Lost Circulation Material on a Large-Scale for High-Temperature Drilling Applications – Abdelmjeed Mohamed, Saeed Salehi, and Ramadan Ahmed (University of Oklahoma); Guoqiang Li (Louisiana State University). [083]	
3:00 – 3:30	BREAK Exhibits Open		
3:30 – 5:30	Drilling Fluids – Session Chairs: Leigh Gray (AES Fluids) and Bala Panamarathupalayam (M-I SWACO)	Machine Learning & AI – Daria Khvostichenko (Schlumberger) and Saad Maraqa (consultant)	Student Contest
3:30 – 4:00	Advancements in Drilling Mud Online Dynamic Imaging Particle and Droplet Size Analysis – Tod Canty and Colin Dalton (Canty). [089]	Real-Time Drilling Hydraulics Advisory System: A Case Study – Ali Karimi, Jonathan Lightfoot, Qian Li, Reza Asgharzadeh, and Tatiana Gobert (Oxy). [078]	
4:00 – 4:30	An In-depth Analysis of Mixed Metal Oxide Fluids and Their Suitability for Lost Circulation – Arthur Hale (Aramco Americas); Ahmed Amer and Pawilai Hallmark (Newpark Fluids Systems). [045]	Drilling Fluids Recommendation System – Artificial Intelligence in Action – Oleh Petryshak, Sergey Makarychev-Mikhailov, Fatma Mahfoudh, Yezid Arevalo, Viktor Antoniuk, and Serhiy Seredynskyy (Schlumberger). [082]	
4:30 – 5:00	Elimination of Wellbore Instability and Water Influx with Fluid Technology Used in Over 60 Wells in the Bakken – Marcus Brassette, Jack DeGrand, John Hightower, and Cody Wellman (Impact Fluid Solutions). [088]	Non-Newtonian Flow in Clogged Non-Circular Piping Conduits – Jamie Chin (Stratamagnetic Software). [006]	
5:00 – 5:30	An Effective Multi-Functional Nanoparticle Drilling Additive for Invert Emulsion Fluid to Drill to Target Depth in a Critical Well – Tulio Olivares and Walid Al-	Return Permeability Optimization Using Flowback Additives in Formate-Based Fluids – Gianna Pietrangeli, Alice Ceballos, Wade Wise, and Laurie	

	Zahrani (Aramco); Jay Lavin (NOV). [084]	Hayden (Baker Hughes); Siv Howard (Sinomine Specialty Fluids). [033]	
	DAY 2 – April 20, 2022		
	Salon A	Salon B	Salon C
8:00 – 9:30	Zonal Isolation – Session Chairs: John Trenerly (Chevron) and Nils Kaageson-Loe (Baker Hughes)	Completion Fluids – Session Chairs: Chris Detiveaux (Newpark Fluids Systems) and Cedric Manzoleloua (M-I SWACO)	Student Interactive with HR <ul style="list-style-type: none"> • Denise Espinoza, Marathon • Amanda Kite, Baker Hughes • Teresa Demoura, Surge Energy
8:00 – 8:30	A Novel Bench-Scale Experimental Setup to Evaluate Cement Sealability to Mitigate Gas Migration – Abdelmjeed Mohamed and Saeed Salehi (University of Oklahoma); Farag Muhammed and Bruno Giovannetti (SNF). [081]	Extending the Temperature Window for Formate Drilling and Completion Fluids with Cellulose Nano Fibrils – Siv Howard, Zhao Anderson, and Christian Busengdal (Sinomine Specialty Fluids); Simen Prang and Hugo Harstad (Norske Skog Saugbrugs). [026]	
8:30 – 9:00	Sealing Challenging Fracture with Acid Soluble Fluid Loss Control Pill – Anna Wei, Joyce Zhang, Josh Sheldon, and Benjamin Merceron (M-I SWACO). [069]	Novel Zinc-Free Heavy Clear Brine Fluid for HPLT Applications – Eric Liimatta and Yunqi Liu (Albemarle); David Messler (Acme Fluids Training). [030]	
9:00 – 9:30	Successful Application of Thixotropic LCM Technology for Zonal Isolation in Magdalena Medio Basin Colombia – Sebastian Mesa, Felipe Quissak, and Carlos Toro (Baker Hughes). [050]	Evaluation of New Equipment to Measure Pressurized Crystallization Temperatures of High-Density Brines – Hui Zhou, Chesnee Davis, Preston May, and Jay Deville (Halliburton). [056]	
9:30 – 10:00	BREAK Exhibits Open		

Day 2

10:00 – 12:00	Pills & Squeezes – Mark Luyster (TBC-Brinadd) and Ingrid Velasco (Newpark Fluids Systems)	Non-Aqueous Fluids – Session Chairs: Dimitri Khramov (Schlumberger) and Fred Growcock (consultant)	Student Interactive with Industry Panel <ul style="list-style-type: none"> Jonathan Lindsey, Talos Energy Patricia Vega, Quantum New Energy Tywon Veazie, Halliburton-Baroid Sumitra Mukhopadhyay – TETRA Technologies
10:00 – 10:30	Low Density Lost Circulation Plug for Low Temperature Applications – Besmir Hoxha, Pranjal Sarmah, Vishnu Ramnarine, and Mario Villalobos (Baker Hughes). [024]	Novel Torque Reduction Technology for Invert Emulsion Fluids in ERD Wells – Tulio Olivares, Walid Al-Zahrani, Rami Sindi, and Abdullah Abahussain (Saudi Aramco). [070]	
10:30 – 11:00	Unconventional Reservoir Depletion Generates the Need for a Dissolvable Cased Hole Sealant – Zachary Turi and Brandon Hayes (DrillChem). [015]	Improved OBM System for North Dakota – William Connell (Baker Hughes) and Tim New (Geo Drilling Fluids). [071]	
11:00 – 11:30	Implementing Manufacturing-Style Workflow to Resin Sealant Squeeze Applications Reduces Cost and NPT – Matt Spirek (American Cementing), Casey Bristow, Larry Watters, and Fred Sabins (Riteks) [020]	A Flat-Rheology Invert Emulsion System Resulted in Operational Excellence and Nonproductive Time Reduction – Rami Sindi, Tulio Olivares-Antunez, and Rafael Rojas (Saudi Aramco); Sunil Sharma (M-I SWACO). [028]	
11:30 – 12:00	A New High Fluid Loss Squeeze: Design to Delivery in the Field – Jordan Bengue and Richard Toomes (AES Drilling Fluids). [055]	A Versatile Flat Rheology Invert Emulsion System Optimized Long Horizontal Drilling and Complex Completions – Hugo Osorio, Abdullah Abahussain and Walid Alzahrani (Saudi Aramco); Sunil Sharma and Ahmed ElBatran (M-I SWACO) [#085]	
12:00 – 1:15	LUNCHEON and Awards Presentations Speaker: Dr. Lynn Frostman, VP Engineering, Syzygy Plasmonics “Reframing Challenges as Opportunities: Sustainability, Hydrogen and the Houston Innovation Ecosystem”		
1:15 – 1:30	Break between Lunch and Panel Exhibits Open		
1:30 – 3:00	PANEL – Embracing the Challenges Associated with Adopting Innovative Concepts and Technology Applications Moderator – Dr. Diana Grauer <ul style="list-style-type: none"> Stayne Hoff, AeroVironment - Autonomy is Not an Option: Flying on Mars David Marchetti, Ocean Power Technologies - Wave Energy Capture Technology Todd Newell, Nauticus - Advancements in Autonomous Underwater Robotic Technology Romin Dasmalchi, KAMAN Aerospace - Autonomous Heavy-lift Cargo Delivery Technology 		
3:00 – 3:30	BREAK – Best Exhibitor Award Exhibits Open		

Day 2 – Late Afternoon

<p>3:30 – 5:30</p>	<p>New Developments – Session Chairs: Richard Toomes (AES Fluids) and Vance Smith (Newpark)</p>	<p>Lost Circulation – Session Chairs: Arthur Hale (Aramco Americas) and Kim Tresco (TBC – Brinadd)</p>	<p>And More... - Kedar Deshpande and Carl Thaemlitz (consultant)</p>
<p>3:30 – 4:00</p>	<p>A Novel Invert Emulsion Lubricant: Review, Design, and Delivery – Richard Toomes and Matthew Offenbacher (AES Drilling Fluids); Michael Luketich (Texas A&M University). [014]</p>	<p>Multifunctional Cement Spacer Fluid Improves Cement Seal Integrity, Minimizes Formation Damage, and Controls Lost Circulation - Fred Sabins, John Ward, and Larry Watters (Riteks); Russel Roberts (Nine Energy). [009]</p>	<p>Maintaining Consistent Rheology of Fluids Containing an Exceedingly High Volume of Low Gravity Drilled Solids for Oil and Gas Drilling - Alexandria Hernandez, Shadaab Maghrabi, Rodrigo Kramer, Kerry Moore (Ingevity). [005]</p>
<p>4:00 – 4:30</p>	<p>Friction or Fiction: A Data-Driven Model for Lubricant Performance – Jordan Blair and John Whyte (Schlumberger). [039]</p>	<p>Acid-Soluble and Degradable Lost Circulation Materials for Productive Zones: A Review and Outlook – Madina Baltaeva and Maxim Orlov (Aramco Innovations). [066]</p>	<p>CFD Modeling of Flow Channels in Non-Newtonian Wellbores with Drill Pipe Rotation - David Rathgeber and Lee Richards (Montana Tech); Erick Johnson and Ryan Anderson (Montana State Univ). [008]</p>
<p>4:30 – 5:00</p>	<p>New Records of Drilling & Environmental Performance Achieved in Delaware Basin Wolfcamp Horizontals Utilizing a Novel High-Performance Water-Based Fluid – Michael Davis and Travis Vordick (Newpark Fluids Systems); Curt Jones (Kaiser-Francis Oil Company). [074]</p>	<p>Smart Bridging Agent Enhanced Well Productivity in Depleted Production Formation – Peter Ryabtsev and Vladimir Kuksov (Akros); Anton Khomutov (Gazpromneft-STC). [052]</p>	<p>A New Low-Solids, Brine-Based, HP/HT Fluid for Well Testing – Hui Zhou, Raul Navarro, and Mohamed Marouf (Halliburton). [060]</p>
<p>5:00 – 5:30</p>	<p>Field Case Study: Application of Microemulsion Technology in Displacement in the Colombian Foothills – Sebastian Mesa, Felipe Quissak, and Carlos Toro (Baker Hughes). [048]</p>	<p>Wellbore Strengthening – Continuous Application or Sweep as Needed? – Ismaeel Musa (Saudi Aramco); Arthur Hale (Aramco Americas); Mamdouh El Mohandes (Baker Hughes). [068]</p>	<p>Comparative Analysis between Mechanical and Non-Mechanical Homogenization Techniques for Field-Used Drilling Fluid Laboratory Testing – Barrett Watts, Benjamin Merceron, and Walter Flores (Schlumberger). [038]</p>

ALTERNATES

Improvements to Bridging Solids Particle Size Selection Models for Post-Gravel Pack Screens – Jessica Ramirez-Angulo, Kurt Landry, and Ed Rapp (TETRA). [004]

Investigating the Caking Phenomena of a Novel Dual Emulsifier and Fluid Loss Additive to Establish Control Specifications for Storage – Shadaab Maghrabi, Devin Granger, Jennifer Henry, Aaron Engel, and Thomas Sisson (Ingevity). [012]

Increasing Value Using a Specialized Weighting Agent for Challenging Operations in Oil and Gas Well Drilling – Christopher Steele, Ole Iacob Prebensen, Yohnny Gonzalez, and Rahul Dey (Elkem). [013]

Don't Lose your Hydrostatic Head - Intelligent Fluids Approach to Curing Loss Circulation and Minimizing NPT –Tulio Olivares and Walid Al-Zahrani (Saudi Aramco); Chidiebere Aniokie (Baker Hughes). [032]

STUDENTS

Mubarek Alpkiray New Mexico Institute of Mining and Technology	Thermal Effects on Wellbore Stability and Fluid Loss in High-Temperature Geothermal Drilling. #01**
William Benson Colorado School of Mines	Optimized Three-Mile Lateral Design. #02
Jose Bocanegra-Yanez Oklahoma State University	Experimental Investigation of Strain-Rate Effect on Cement-Steel Bond Measurement. #03
Nicholas Bryan Colorado School of Mines	A Study of Lost Circulation Materials in Massive Fractures Networks. #04
Cameron Devers University of Oklahoma	Geopolymer Compatibility with API Cement Mixing Standards. #05
Ivan Feng University of Texas - Austin	Model Predictive Control for Automated Drilling Fluid Maintenance. #06
Hazem Fleifel Louisiana State University - Baton Rouge	Modeling and Transient Simulation of Foam-Assisted Bullheading Processes in MPD and UBD Applications. #07
Faraz Khan Oklahoma State University	Data Analysis to Explore the Effect of Drillstring Natural Vibration on Drill Bit Dynamics. #08
Mohamed Metwally New Mexico Tech	Evaluations of Polyacrylamide Water-Based Drilling Fluids for Horizontal Drilling in the Permian Basin. #09
Olatunji Olayiwola University of Louisiana, Lafayette	The Application of Nano-Silica Particles in Sealing Well Cement Channeling. #10
Saba Sadiq University of Wyoming	A Comparative Analysis and Look into Alternative Drilling Fluid Systems. #11

** refers to the paper number. The full paper number for student papers is AADE-22-FTCE-SPP-XX where the XX refers to the #00.