AFRICAN OFFSHORE BASINS
POTENTIAL IN SOUTHERN REMAINING HYDROCARBON
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WHAT TO EXPECT FROM THE AAPG/EAGE EXPERIENCE
The American Association of Petroleum Geologists (AAPG) and our suppliers, venues and services partners are committed to providing a clean and safe event environment for all participants. We remain alert to COVID-19 risks and are closely following and adapting to all applicable health and safety guidelines. While conditions vary between countries, cities, municipalities, and facilities, safeguarding measures are in place, ensuring that AAPG events are a physical distancing and mask-wearing environment. Readily available hand sanitizer, enhanced cleaning and disinfecting protocols, temperature health checks and screenings, minimized touchpoints and cashless payment options.

As personal safety is a shared responsibility, we ask that all participants ensure that they are feeling well and in good health, with no fever or other symptoms related to COVID-19, before showing up at an AAPG event. Any specific delegate obligations will be published in pre-event communications and clearly displayed on signage throughout our venues. Given the ever-changing nature of the pandemic recovery, registants will receive regular updates and instructions concerning the latest health and safety requirements.

TECHNICAL SESSIONS

SESSION 1:
New Exploration Opportunities and Recent Advances in Southern African Offshore Basins

SESSION 2:
Exploring New Plays in a Challenging Environment

SESSION 3:
Worldwide Analogues to Better Understand the Deep Water of Southern African Basins

SESSION 4:
Infrastructure and Upstream Development Potential

SESSION 5:
Legislative Challenges, Local Content and Capacity Development

WORKSHOP OUTLINE
The recent large hydrocarbon discoveries offshore Mozambique and now South Africa highlight the offshore Southern African Basins as a hotspot for global hydrocarbon exploration. This 3-day geosciences technology workshop includes an optional field trip to the deepwater sediments at the Tanqua Karoo. Participants of this field excursion will be visiting the world’s best examples of ancient basin floor to slope fan complexes associated with fluvial-dominated deltaic systems. The Permian Tanqua- and Laingsburg fan complexes of the south-western Karoo Basin have served as an analogue for many deepwater systems around the world and continue to be the most sought after “open-air laboratory” for studying the nature of fine-grained deepwater sedimentation.

The workshop aims to provide a broad platform for presenting and discussing the understanding of the petroleum geology of Southern African Offshore Basins in Mozambique, Namibia, Tanzania, Angola and others, encompassing themes associated with its plays and reservoirs. The workshop will also provide an opportunity to integrate academic with industry players in Southern Africa to help establish Southern Africa as a vibrant and emerging prolific petroleum hub. This workshop is intended to bring those working or studying in the Southern Africa basins, geoscientists, engineers, and policymakers together for robust discussions.

WORKSHOP GUIDELINES

FORMAT
The workshop will be 3 days, consisting of oral presentations, poster presentations and breakout sessions where participants can discuss and investigate a specific theme that is of mutual interest. The first day will feature an inaugural keynote speech by a high-profile professional from the industry.

ATTENDANCE
Registrations are invited from all relevant disciplines with experience and/or knowledge of the subject areas being addressed in the workshop. Registrations will be accepted on a first-come, first-served basis.

CALL FOR POSTERS
You are invited to prepare a poster display for presentation. If you are interested in participating, please send a short abstract to cnavarro@aapg.org by 7 January 2022. All posters will be produced as pull-up banners and delivered by AAPG. There will be no other format available for poster display.

REGISTRATION TYPES & FEES
Fees are inclusive of onsite documentation, coffee breaks and luncheons. To avail the Member/Committee/Printer rate you must be an active member of AAPG or a committee/speaker at the event. To register as a Young Professional you must either be a current student or a young professional under the age of 35 with less than 10 years of work experience.

REGISTRATION DEADLINE
To guarantee your seat, please make sure to register by 28 January 2022.

WORKSHOP LOCATION
Cape Town, South Africa

CANCELLATION POLICY
AAPG will refund the tuition fees $100 if the request is received no later than 30 days prior to the workshop. Cancellations must be made in writing. The registrar will accept cancellation notices by telephone, but all such notices must be followed up by fax or e-mail. Written confirmation of cancellations received less than 30 days prior to a workshop being given. Nonpayment of tuition does not constitute automatic cancellation. If it is received 30 days prior to a workshop, participants are liable for full tuition. AAPG reserves the right to cancel a workshop if enrollment is insufficient to ensure proper effectiveness. Substitutions for individuals can be made at any time. A paid enrollment may be transferred one time to a future workshop if the request is received prior to the 30-day cut-off date.
Frontier offshore basins of Southern Africa have proven to be rich in hydrocarbon source rocks with some prolific basins already under exploration. The Mozambican deep-water gas fields in the Rovuma Basin and have already resulted in plans for LNG projects with more potential in fairways that extend into Tanzania, the Zambesi Delta Basin, and further offshore. Off the coast of Namibia, exploration continues in the Orange Basin and deep water blocks offshore Angola has been ambitious discoveries, most recently being light oil in the Cuica exploration prospect. New exploration remains in South Africa have reawakened interest for further exploration with the significant gas condensate discoveries in the Outeniqua Basin, which highlights the petroleum potential of up to 20,000 km² of Early to Mid-Cretaceous rift and drift basins. Renewed interest in the extension of the Orange Basin off the west coast of South Africa and its potential for Mid-Cretaceous oil plays, has operators planning to drill key wells in the coming years. On the east coast of South Africa, the Natal and Zululand Basins too have good potential for an Aplian source rock. Southern Africa countries have only scratched the surface of what hydrocarbon potential the offshore basins may hold, which promises exciting years of exploration to come. As the legislative routes begin to open up, investment opportunities for the offshore oil and gas market will grow along with an abundance of opportunities. This session theme aims to draw attention to Southern Africa's vast hydrocarbon potential and to discuss the various active, innovative, and upcoming avenues for exploration to be found offshore.

SESSION 3: WORLDWIDE ANALOGUES TO BETTER UNDERSTAND THE DEEP WATER OF SOUTHERN AFRICAN BASINS

In E&P industry the most cost intensive projects are exploring in Deep waters. In recent years many discoveries are being made across Southern African deep water Petroleum systems, especially in Mozambique, Tanzania, and recently in South Africa. Each discovery presents a new challenge, starting from data acquisition, processing, and mapping (API) and finally to drilling, production and development. We have to learn from these discoveries to mitigate risk and minimize cost of production to make it profitable. Global analogues are widely used across the Exploration and Production (E&P) life cycle to meet these challenges. Analogues, used in conjunction with primary data, expand the knowledge of both the individual and team and develop insights that are not possible from using either local data or individual experience in isolation. Difficulties in the application of analogues arise when the analogues are not selected consistently, are too specific, or are in conflict with empirical local data. Most of these difficulties arise from the lack of a proper definition of analogues, absence of a systematic method of analogue selection, and poorly defined objectives for the use of analogues.

Analogues are herein defined as comparable fields and reservoirs relevant to a specific question or set of questions. To select appropriate analogues, Explorationist should focus on specific individual question(s) instead of “look-alike” fields, as each field has its unique adversity.

Papers and speakers in this section are invited to present case studies for proved, probable and possible petroleum systems in deep water and their appropriate application of global analogues to a local situation, as this will not only foster creative thinking but also provides a way to quickly learn, increase confidence, and efficiently reduce risk for E&P decision-making.

SESSION 4: INFRASTRUCTURE AND UPSTREAM DEVELOPMENT POTENTIAL

The development phase of an oil field life cycle follows a successful appraisal phase and is commonly the most investment intensive phase of a project which focuses on economical evaluation and risk management. Critical operating decisions for field development planning and execution are made involving many different stakeholders including those involved in understanding the subsurface deliverability of the hydrocarbon reservoirs, and those involved in the design and manufacture of facilities and pipelines. Key decisions include selection of fields for development, subsurface recovery design, well design, platform installation and sizes, field network and production depth, as well as expected production of oil and gas from selected fields. With several large hydrocarbon discoveries offshore Southern Africa in recent years, many operators are now moving into field development planning aimed at optimizing economical objectives. The decisions made require consideration of a number of physical and practical factors such as, existing infrastructure in place offshore Southern Africa and at the nearest port, facility requirements based on hydrocarbon composition and flow profiles, and the production planning schedule for each project. In addition to these considerations, operators are required to work within the legal, environmental and economic frameworks of the Production Sharing Agreements with local government. Furthermore development plans may include a combination of; conventional platforms, tension leg platforms (TLPs), floating production systems (FPS), floating production storage and offloading systems (FPSOs), floating liquefied natural gas (FLNG), subsea structures (flowlines, wellheads etc.) and more. This session will discuss planning, optimization, and challenges related to infrastructure and field development offshore Southern Africa.