



The Petroleum System of the Deepwater Mauritania / Senegal & the discovery of the Ahmeyim Field

Mauritanides Conference
12th October 2016

PAUL DAILLY
Founding Partner &
Senior Vice President, Exploration

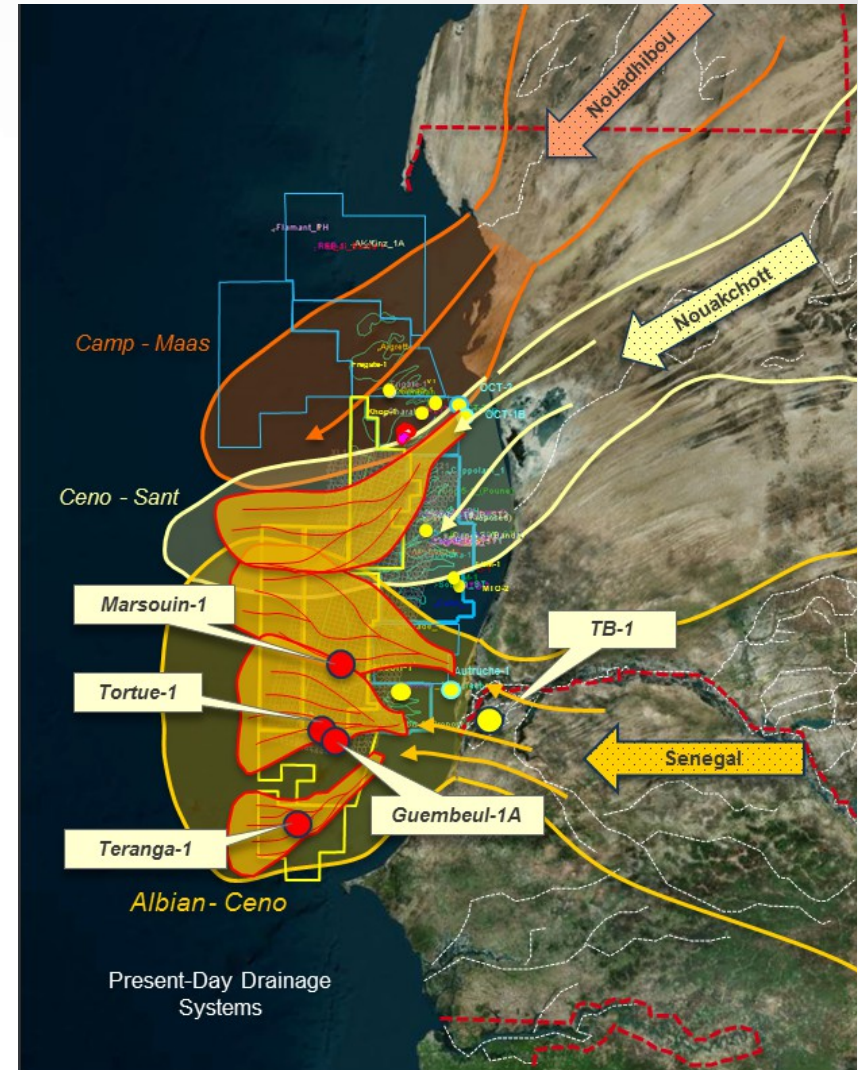
Presented by Kosmos Energy in co-operation with

*Societe Mauritanienne des Hydrocarbures
et de Patrimoine Minier
and the
Societe des Petroles du Senegal*

Kosmos in Mauritania: A Contrarian Idea

While the majority of previous exploration was focused in the northern, inboard reservoir fairways, Kosmos recognized the older, southern Senegal River reservoir fairway was underexplored and had considerable deep-water potential

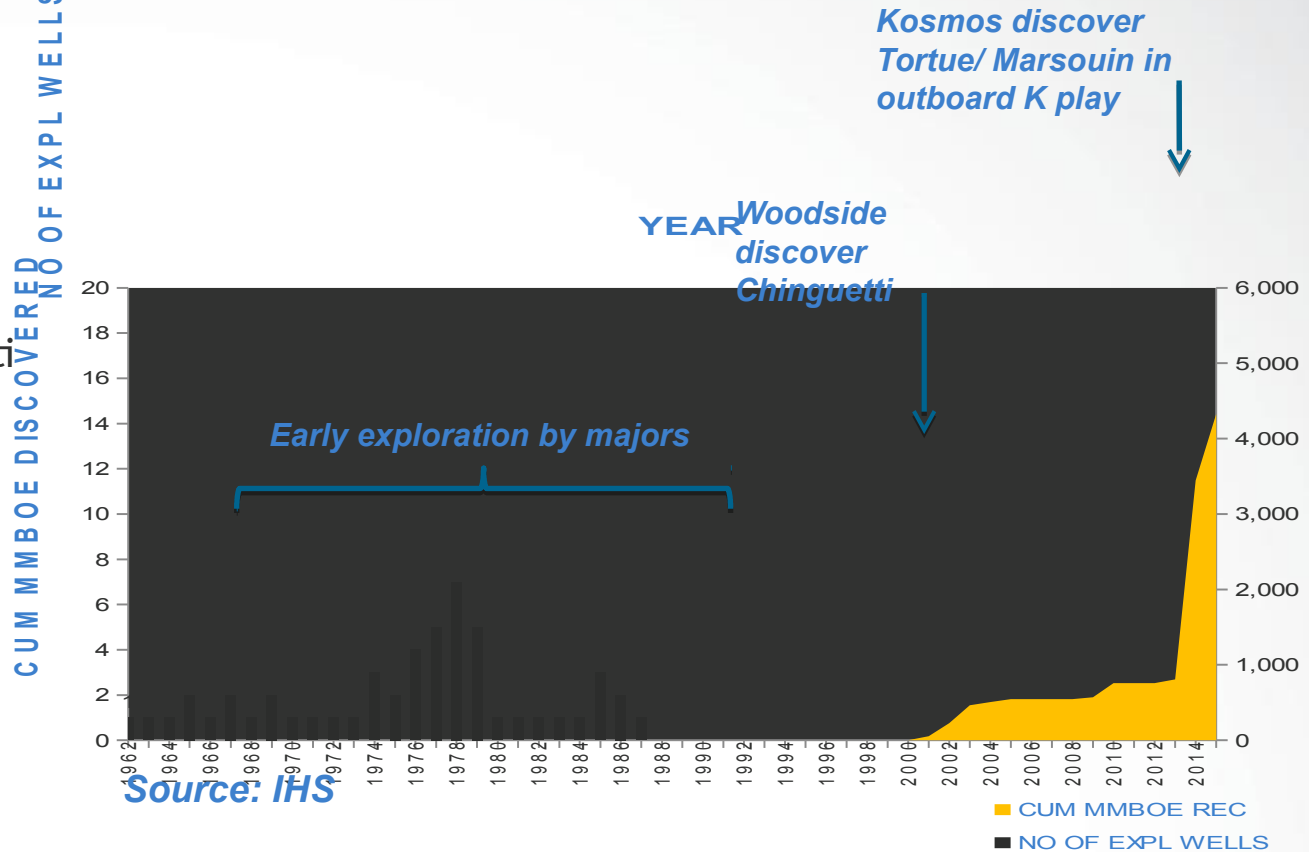
- Three major reservoir systems are present offshore Mauritania but most exploration had focused on the northern systems: the Cretaceous Nouadhibou & the Tertiary Nouakchott with modest success.
- Most previous exploration focused on slope systems
- Kosmos has targeted deeper water areas where reservoir systems are better developed and are deposited in thicker accumulations.
- We also believed it was possible to mature an older, deeper source rock in the outboard area which could charge these older reservoirs



Mauritania: Exploration History

Exploration drilling history & discovered resources offshore Mauritania

- Over 50 exploration wells drilled offshore Mauritania
- Early exploration focused on the shelf by Majors in the 70's & 80's
- Early discovery came in the salt basin with the Chinguetti discovery in the deepwater slope play which demonstrated a working petroleum system.
- Subsequent exploration has been limited to slope area until Kosmos recent outboard program resulted in major discoveries in a new petroleum system



Outboard Mauritania/Senegal: A Giant Petroleum System



The outboard Cretaceous petroleum system offshore south Mauritania and north Senegal is a super-major scale hydrocarbon province with a world-class gas resource and substantial follow-on potential for both gas and oil

Large Scale

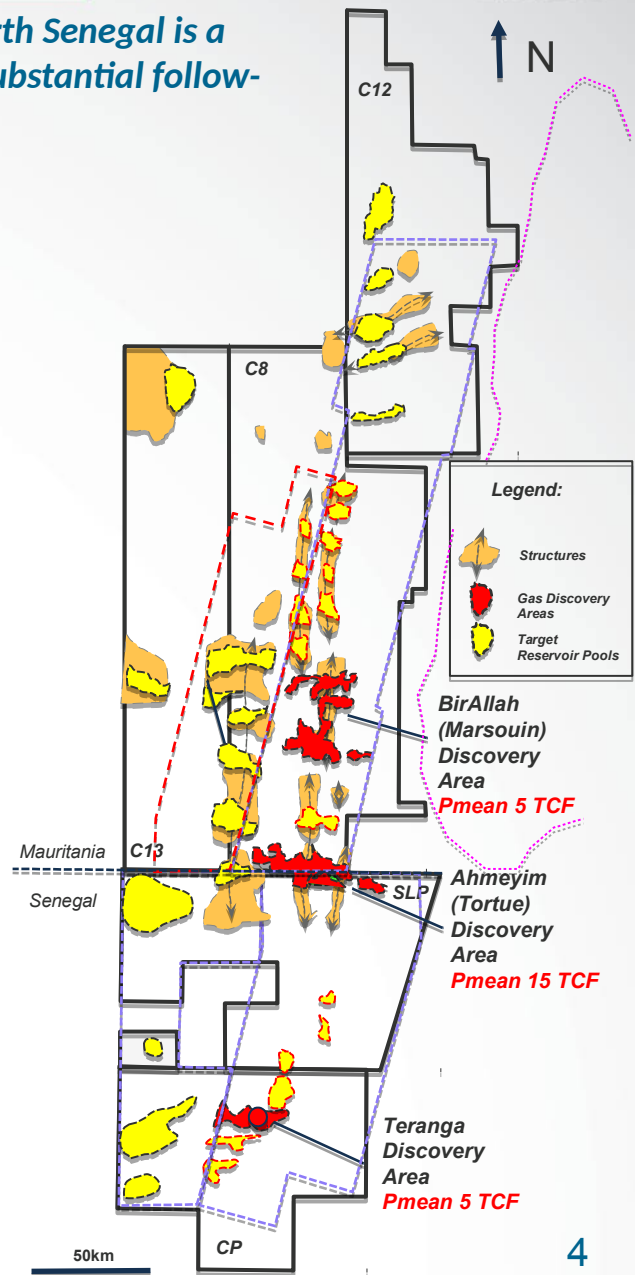
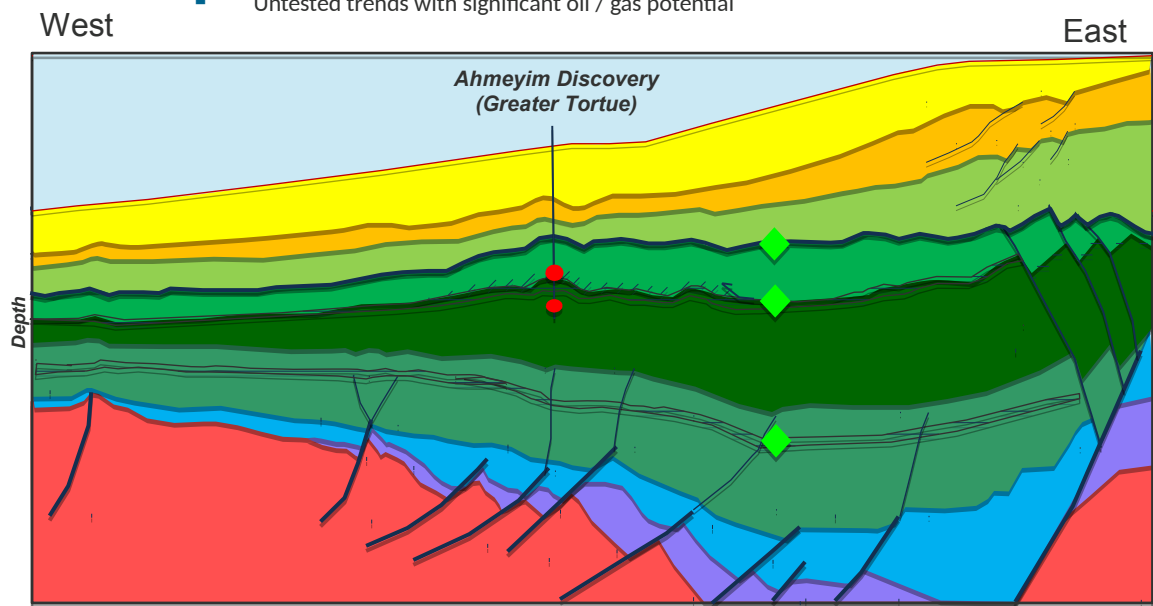
- ~40,000 km² acreage position
 - Equivalent to ~1,700 GoM blocks and ~10x the size of original Ghana licenses
 - Average 75% working interest and operatorship

Early Stage

- Only 5 wells
 - 100% success rate
 - 3 trends tested with ~25 Tcf Pmean gross discovered resource
 - Overall gas resource > 50 Tcf including follow-on exploration on trend

De-risked

- Proven petroleum system
 - Three prolific oil and gas source rocks
 - Lower Cenomanian & U. Albian high quality reservoirs
 - Calibrated seismic and AVO tool
 - Untested trends with significant oil / gas potential

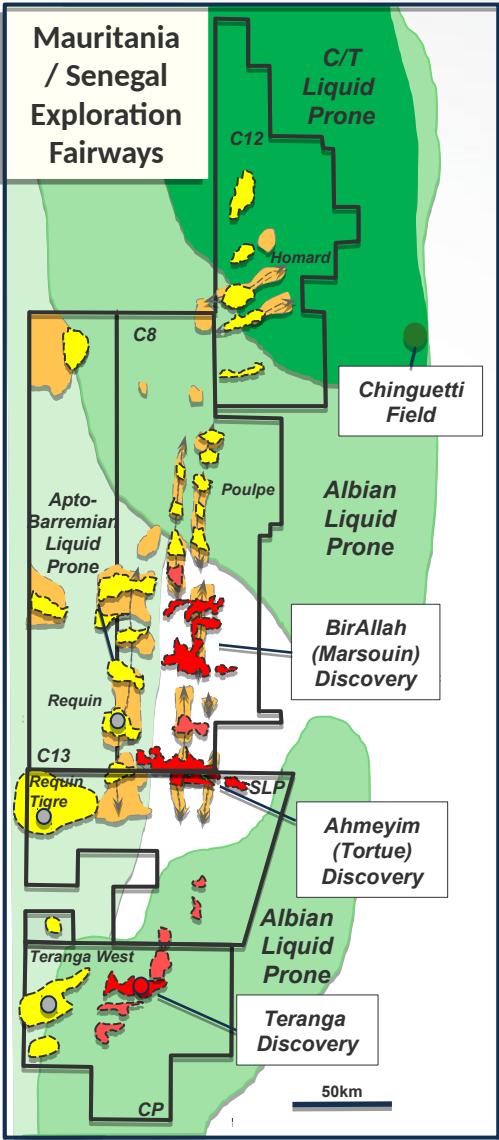


Mauritania / Senegal: Source Rocks



Evidence of three marine, oil – prone & mature sources

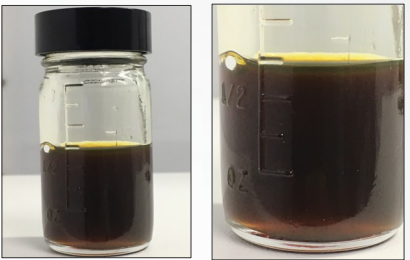
- ✓ C/T Source: proven in Chinguetti Field
- ✓ Albian Source: Upper Albian source facies and liquids sampled in Teranga-1
- ✓ Apto-Neocomian Source: whole core fluorescence observed over a 67 meters interval below the GWC in Ahmeyim-2; DSDP #367 well penetrated oil – prone source facies



Chinguetti Field
C/T Source



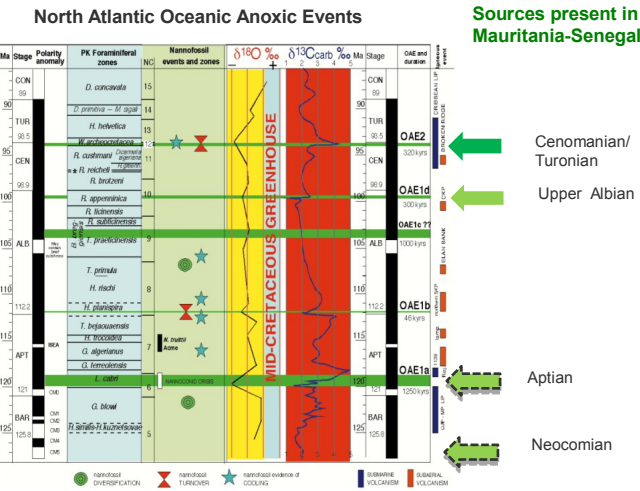
Teranga-1
Upper Albian Source



DSDP Well #367
Neocomian Oil Source



Ahmeyim-2
Apto-Barremian Source



DSDP Well #367 cores contain marine, oil – prone source

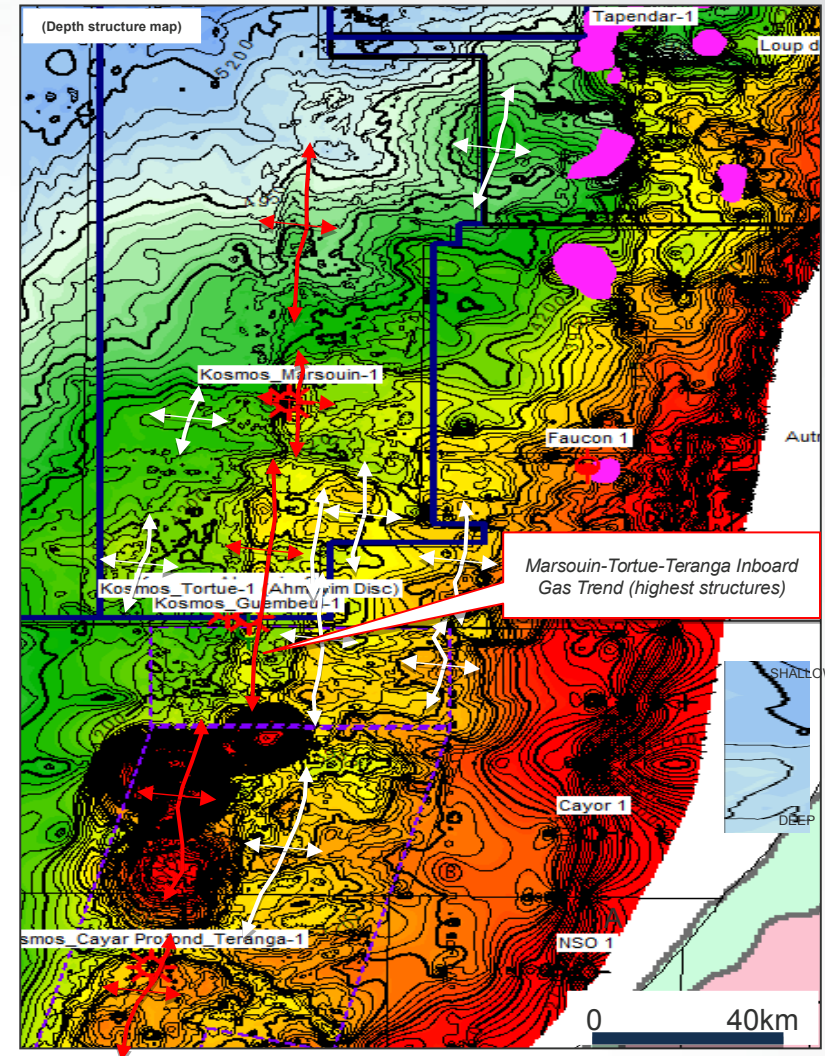
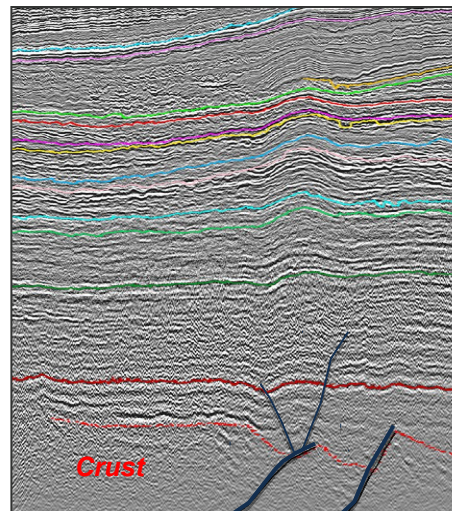
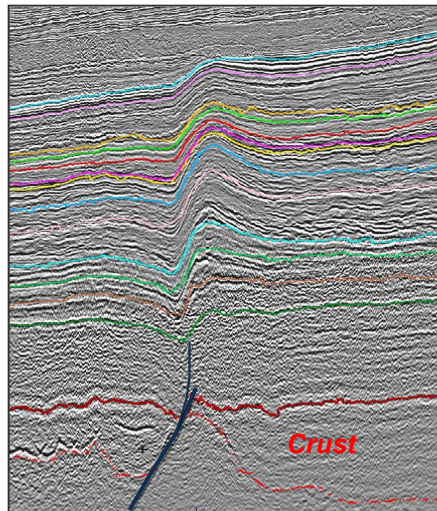
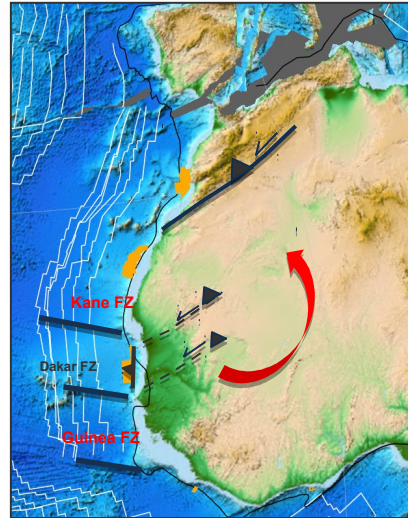
Core fluorescence below GWC - deeper sourced oil

Bice, et al., 2002

Mauritania/Senegal: Trap Formation

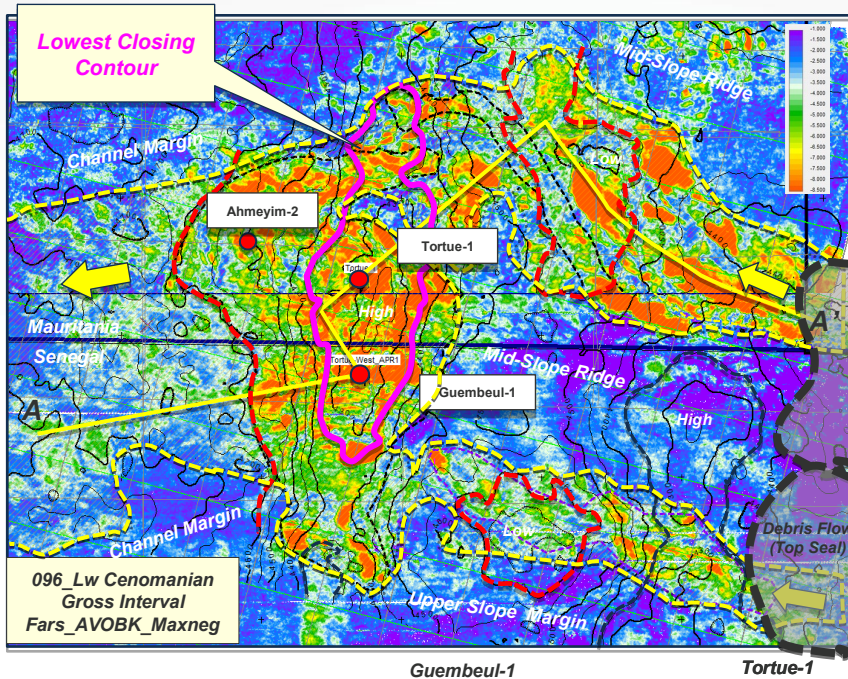
Transpressional anticlines began to form during the Santonian continuing until Lower Miocene. These form a focus for migration & provide the structural element to combination traps

- Transpression reactivates Jurassic extensional/ rift faults forming anticlines
- Changes in plate rotation began in the Santonian and continued episodically through the Lower Miocene as Africa rotated counter clockwise toward Europe.
- The inherited basement fabric of the basin received a compressive stress, forming the N- S to NE-SW oriented anticlines seen in the offshore.

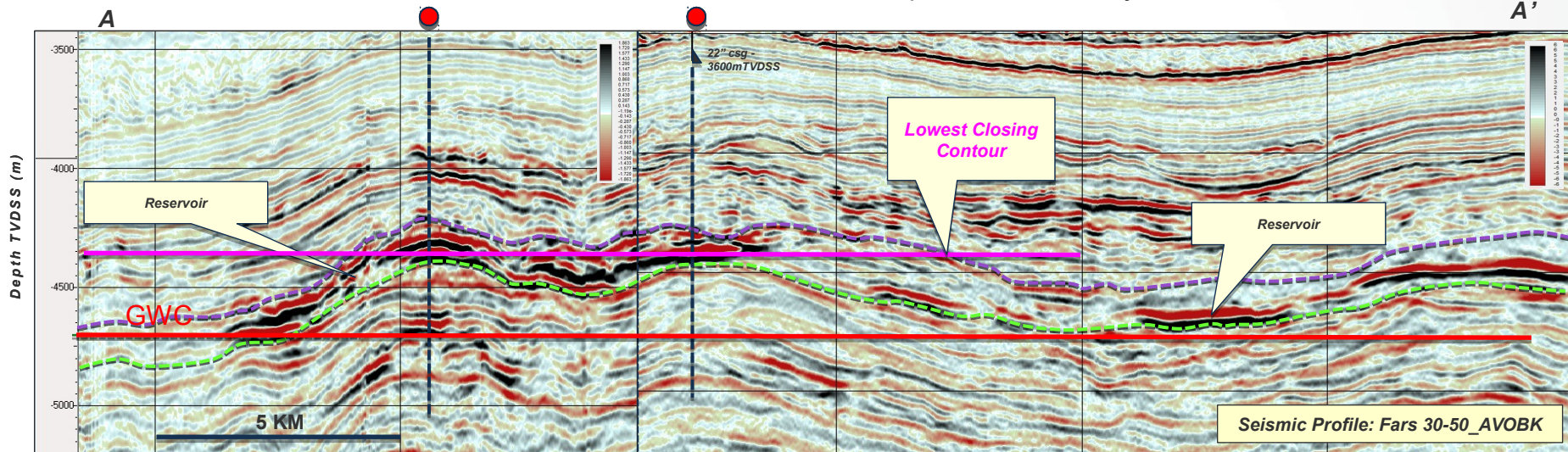


Ahmeyim Discovery

Ahmeyim is a giant trap draped over a large anticline but with an up-dip stratigraphic control



- Net pays for the wells in the field range from 94m in Tortue 1, 65m in Guembeul1A & 53m in Ahmeyim 2
- Greater Tortue Lower Cen gas gradients fall within 2 psi of each other indicating similar fluids and static communication between wells.
- The hydrocarbon column height is nearly 400m above the GWC.
- The reservoir package is draped over a large structural feature but the spill point exceeds the closure and the critical up-dip trap is created by debris flows which truncates the feeder channel.
- The structures function as a migration focus/ pathway for the Apto- Neocomian hydrocarbons.

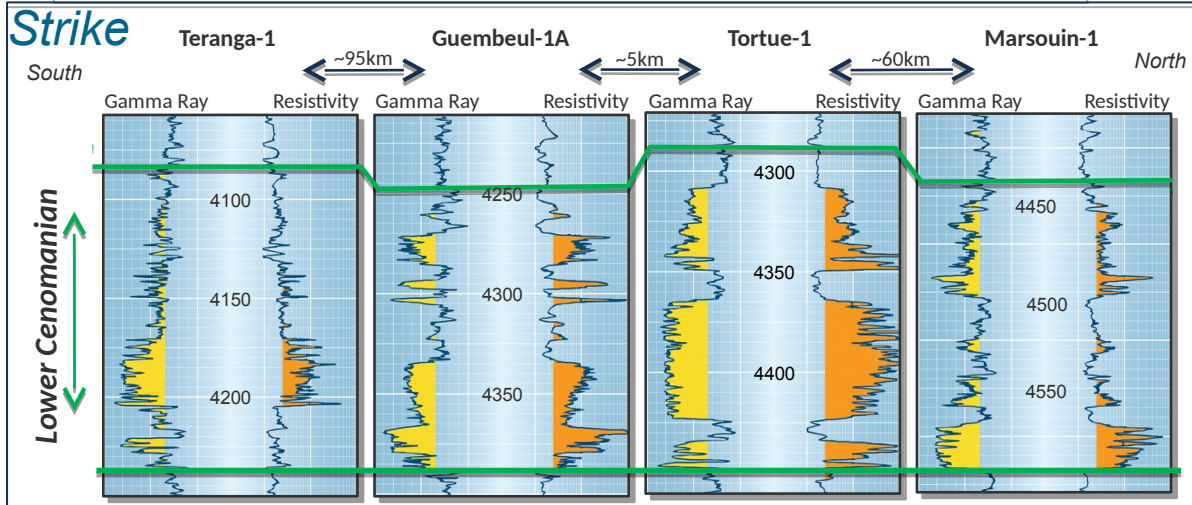
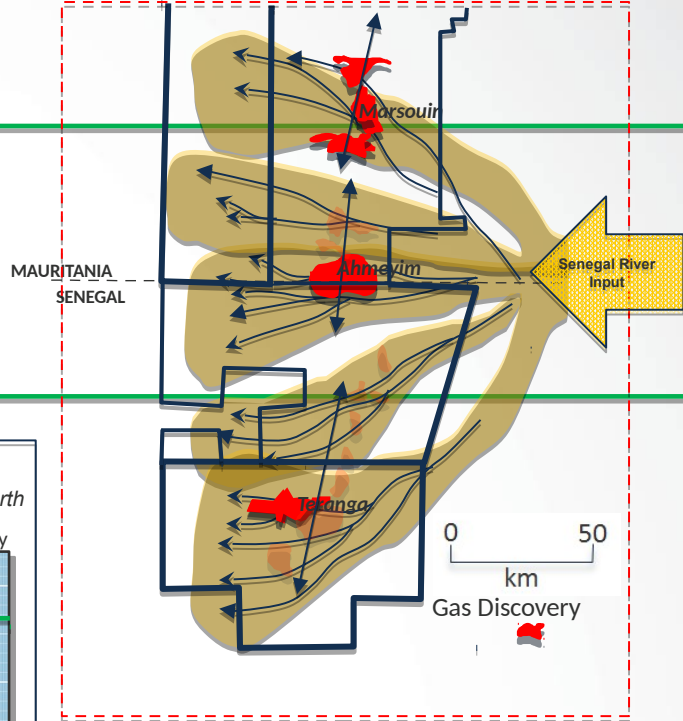
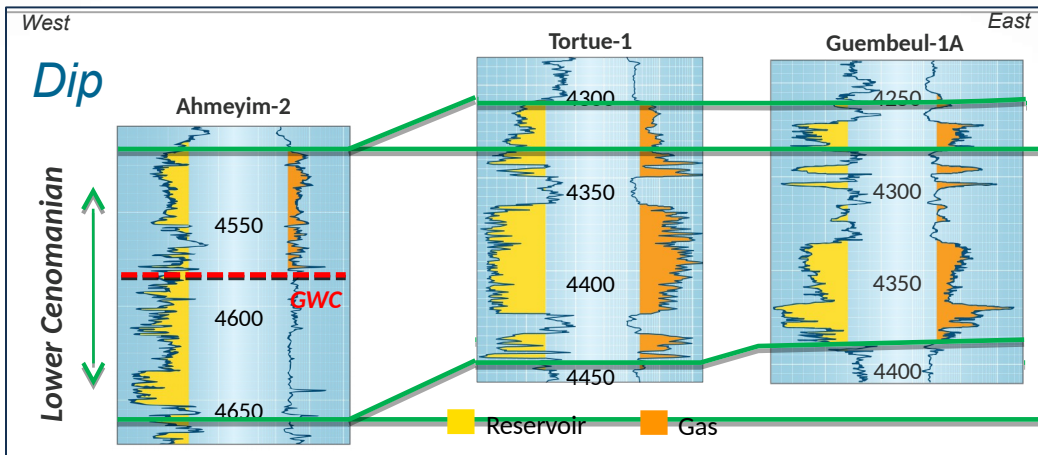


Reservoir: Slope / Channel Fairway Summary



The primary, Cenomanian reservoir fairway is composed of thick high quality sands and extends over an area of ~200 km

- Over 70% of the Cenomanian reservoir is comprised of massive, clean sands with minor detrital clay content
- Moderately to well sorted, very fine to fine grained sub-arkosic sandstones
- Porosities average low 20's but as high as 32%
- Permeabilities averaging hundreds of mD's but as high as 1800mD
- Tidal & longshore currents have contributed to re-distributing and sorting the sand



Developing Discovered Gas

Project moving forward with significant below and above ground progress made



Quality Resource

Deliver ~15 Tcf with high resource density, high well deliverability



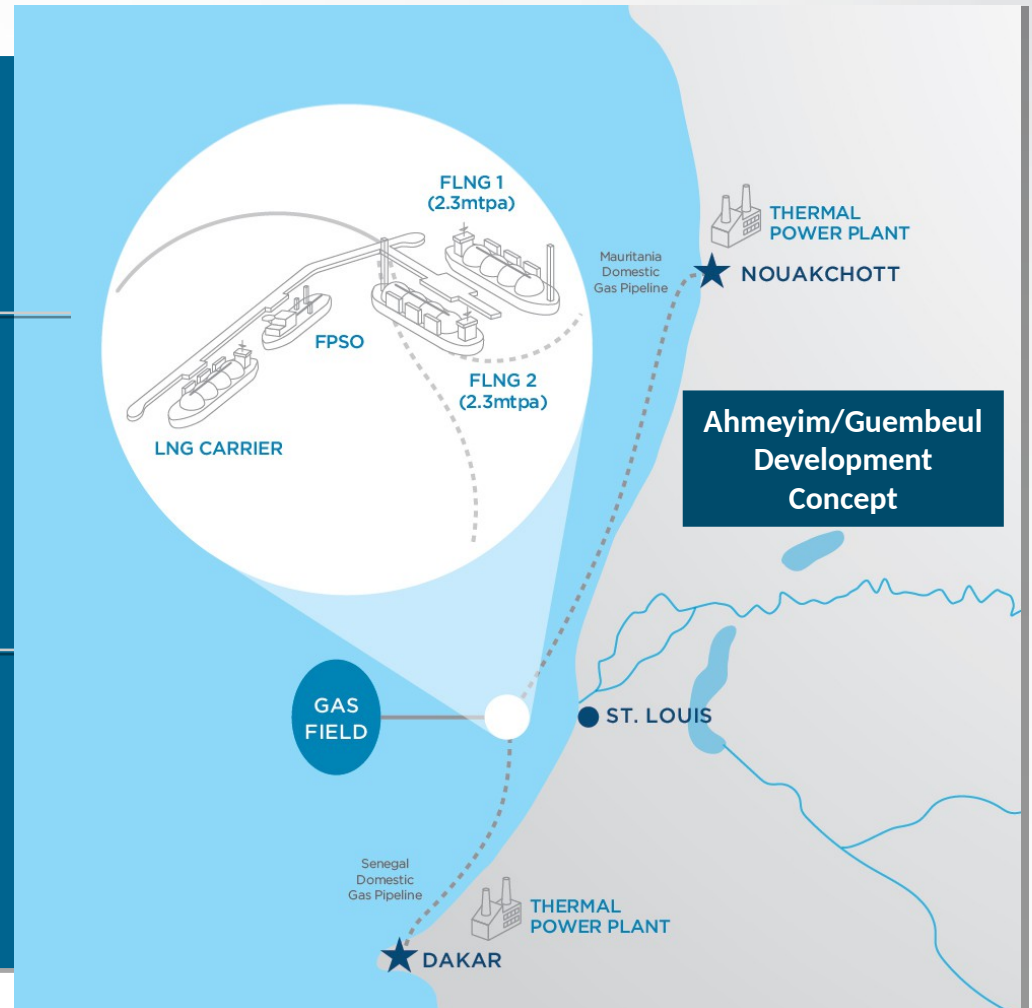
Supportive Governments

Anticipate signing of Intergovernmental Cooperation Agreement (ICA) by both governments by year-end



Conceptual Development Plan

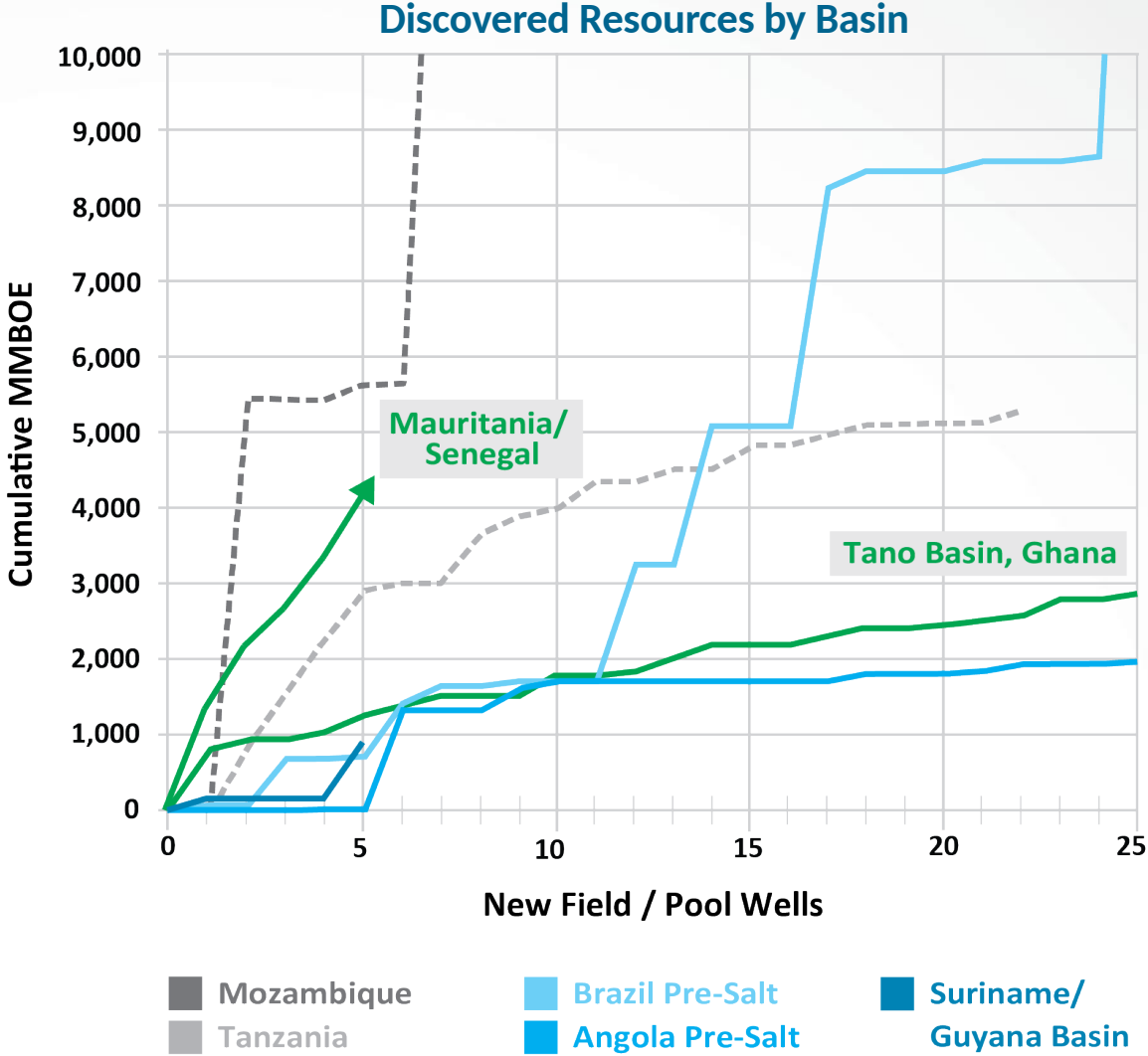
Competitive near-shore FLNG concept selected with estimated breakeven of less than \$5.00/mcf FOB



Mauritania-Senegal: A Rapidly Growing Hydrocarbon Province



Mauritania-Senegal has the potential to become one of the largest petroleum systems in the Atlantic. It is one of two opened by Kosmos Energy in the last decade



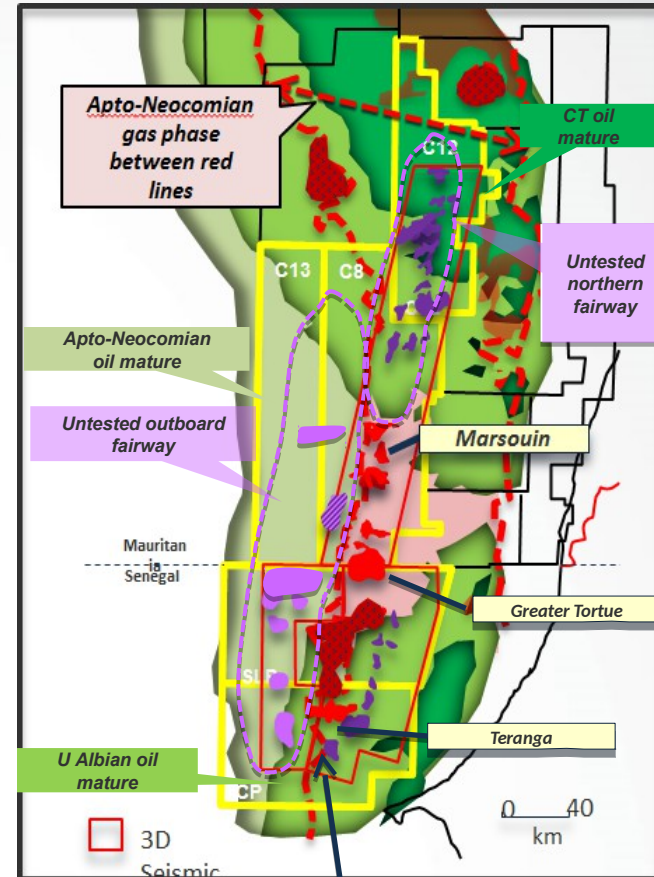
Source: IHS EDIN

2nd Exploration Phase: The Basin Floor Frontier

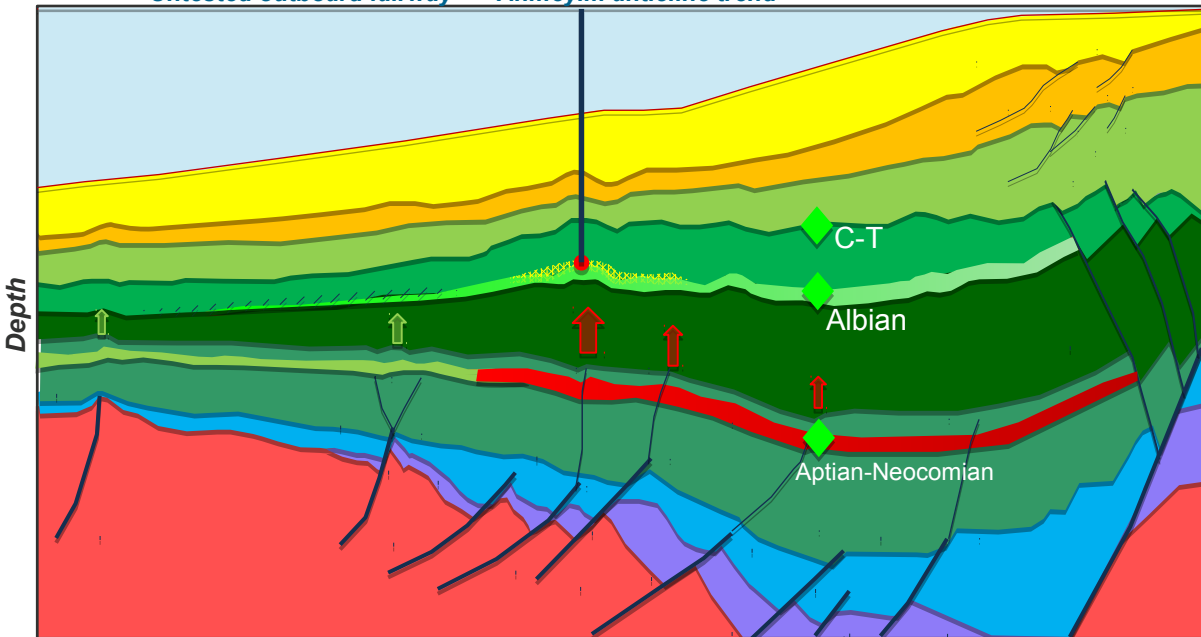
To date only one structural trend has been explored and a number of new plays are present particularly in deep-water, basin floor area where the chance of finding more liquids is enhanced

- Oil generation from the Lower Cretaceous source began prior to the formation of the transpressional anticlines thus allowing the oil expelled from the inboard kitchen, to migrate basinward.
- The transpressional anticlines changed the migration focus from lateral to vertical during the gas generation period.
- The Tortue-Marsouin-Teranga structural trend marks the line of highest structures in the basin . Consequently, this has captured a large volume of gas potentially placing the outboard into a migration shadow for gas.

Regional Basin Model: present day source maturity



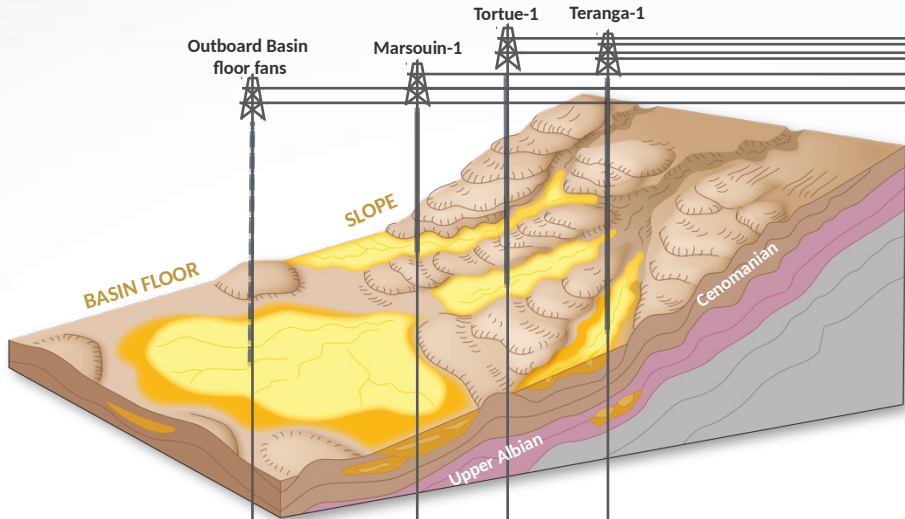
Untested outboard fairway Ahmeyim anticline trend



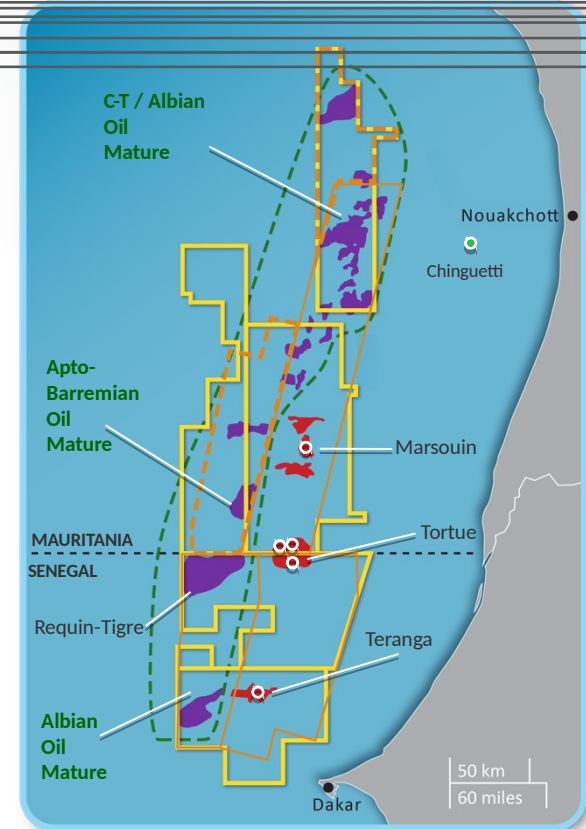
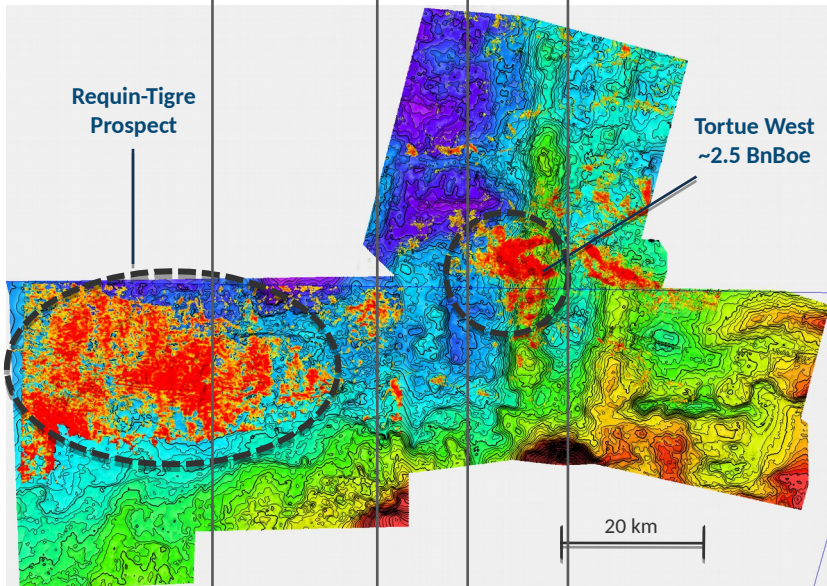
Marsouin-Tortue-Teranga Inboard Gas Trend (highest structures)

2nd Exploration Phase - Outboard

Second phase exploration program will focus on this outboard trend with the potential for large basin floor fan accumulations



Base of Cenomanian Depth Structure and Far Amplitude



3D Seismic

- Complete
- To be Completed

2nd Phase Exploration Focus

- Oil or Gas Lead / Prospect
- Gas Discovery

KOSMOS  **S**
ENERGY®

Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements, other than statements of historical facts, included in this presentation that address activities, events or developments that Kosmos Energy Ltd. ("Kosmos" or the "Company") expects, believes or anticipates will or may occur in the future are forward-looking statements. Without limiting the generality of the foregoing, forward-looking statements contained in this presentation specifically include the expectations of management regarding plans, strategies, objectives, anticipated financial and operating results of the Company, including as to estimated oil and gas in place and recoverability of the oil and gas, estimated reserves and drilling locations, capital expenditures, typical well results and well profiles and production and operating expenses guidance included in the presentation. The Company's estimates and forward-looking statements are mainly based on its current expectations and estimates of future events and trends, which affect or may affect its businesses and operations. Although the Company believes that these estimates and forward-looking statements are based upon reasonable assumptions, they are subject to several risks and uncertainties and are made in light of information currently available to the Company. When used in this presentation, the words "anticipate," "believe," "intend," "expect," "plan," "will" or other similar words are intended to identify forward-looking statements. Such statements are subject to a number of assumptions, risks and uncertainties, many of which are beyond the control of the Company, which may cause actual results to differ materially from those implied or expressed by the forward-looking statements. Further information on such assumptions, risks and uncertainties is available in the Company's Securities and Exchange Commission ("SEC") filings. The Company's SEC filings are available on the Company's website at www.kosmosenergy.com. Kosmos undertakes no obligation and does not intend to update or correct these forward-looking statements to reflect events or circumstances occurring after the date of this presentation, whether as a result of new information, future events or otherwise, except as required by applicable law. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this presentation. All forward-looking statements are qualified in their entirety by this cautionary statement.

Cautionary Statements regarding Oil and Gas Quantities

The SEC permits oil and gas companies, in their filings with the SEC, to disclose only proved, probable and possible reserves that meet the SEC's definitions for such terms, and price and cost sensitivities for such reserves, and prohibits disclosure of resources that do not constitute such reserves.

The Company uses terms in this presentation, such as "total un-risked resource potential," "total discovered," "net un-risked mean discovered resources," "net un-risked resource exposure," "de-risked plays," "defined growth resources," "de-risked prospectivity," "discovered resources," "potential," "gross resources" and other descriptions of volumes of reserves potentially recoverable that the SEC's guidelines strictly prohibit the Company from including in filings with the SEC. These estimates are by their nature more speculative than estimates of proved, probable and possible reserves and accordingly are subject to substantially greater risk of being actually realized. Investors are urged to consider closely the disclosures and risk factors in the Company's SEC filings, available on the Company's website at www.kosmosenergy.com.

Potential drilling locations and resource potential estimates have not been risked by the Company. Actual locations drilled and quantities that may be ultimately recovered from the Company's interest may differ substantially from these estimates. There is no commitment by the Company to drill all of the drilling locations that have been attributed these quantities. Factors affecting ultimate recovery include the scope of the Company's ongoing drilling program, which will be directly affected by the availability of capital, drilling and production costs, availability of drilling and completion services and equipment, drilling results, agreement terminations, regulatory approval and actual drilling results, including geological and mechanical factors affecting recovery rates. Estimates of reserves and resource potential may change significantly as development of the Company's oil and gas assets provides additional data.