THE QUEST FOR ENERGY:
CHALLENGES OF DEEPWATER EXPLORATION

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Presentation outline

• The never-ending search for energy
• Development of deepwater pursuit
• Factors driving deepwater exploration
• R&D : The backbone of deepwater E&P
• Challenges, present and future
• The road ahead
The never-ending search for energy

- World’s energy need: 82 mil. barrels/day.
- IEA projected this to double by 2030.
- Current reserves: 1.93 trillion barrels.
- Production depletion rate: 1 mil./day.
- Peak oil: no longer a myth?
- Current jitters due to imbalance in production/consumption and adverse on-gosings in oil-producing nations.
Deepwater development

- New mantra: Diversifying energy supply.
- This leads to exploration of new frontiers.
- Quest for O&G is going further, deeper.
- Deepwater definition will change as deeper frontiers are explored.
- Cost of drill deepwater well: US$30-50 mil.
- Cost of single field development: US$1 bil
- Deepwater development is on a roll!
Factors driving deepwater development

• Rising world energy demand, propelled by developing countries.
• Bullish forecast of deepwater reserves.
• Availability of technologies to support E&P.
• Strong support services.
• The rise of China and India as economic superpowers.
R&D : The backbone of deepwater E&P

• Deeper water = greater challenges, hence the use of right technologies is crucial.
• Behind tech inventions in O&G lies R&D.
• R&D is critical to ensure effective design, production, operations.
• R&D also plays a major role in forecasting reservoir performance.
• As pursuit gets deeper, more R&D is needed to come up with the right tools.
Challenges, present and future

- Technology’s role to become more crucial
- Able and adequate support base detrimental to deepwater E&P success.
- Bigger capital investment needed.
- More effective solutions needed to shorten production and delivery time.
- Exploration of more greensites.
Challenges, present and future

- Competition for market share impacting investment allocation for deepwater
- Environmental issues.
- Allocation of resources for environmental activities.
- Deepwater exploration of gas as an alternative energy source.
- Human dimension issues.
The road ahead

• As world’s thirst for energy continues, deepwater pursuit will gain momentum.
• As new fields are discovered, more supply will be on the way.
• With technologies available, the outlook should remain bullish.
• Daunting geological challenge looms.
• Respect and protect, not just extract!
THANK YOU

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