2014 ASME/ALRDC Gas-Lift Workshop – Keynote Address

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Population growth drives energy demand

The world’s population will rise by more than 25 percent from 2010 to 2040, reaching nearly 9 billion.

Source: ExxonMobil 2013 Outlook for Energy
Economic growth, and the improved living standards it enables, will require more energy.

Source: ExxonMobil 2013 Outlook for Energy
Efficiency will help offset energy demand

The greatest source of energy for the future is continuing to use it more efficiently.

Source: ExxonMobil 2013 Outlook for Energy
ExxonMobil plans to invest $190 billion from 2013-17 to meet growing global energy needs.

$190 BILLION equates to:
- $38 BILLION a year
- $128 MILLION a day
- $89 THOUSAND a minute

Source: ExxonMobil 2012 Summary Annual Report
We have a presence on **six continents** and operations in **47 countries**.
Technology for Energy Challenges

Technology to address the twin challenges of increased energy demand while mitigating risk from GHG emissions

- **Improving Efficiencies**
  - Automotive technologies
    - *Vehicle light weighting*
    - *Exxcore™: tire lining technology*
    - *Advanced synthetic lubricants*
  - Power generation
    - *Cogeneration*
    - *Wind turbine lube oils*

- **Expanding Supplies**
  - Directional drilling
  - Unconventional and liquefied natural gas
  - Advanced biofuels
  - Artificial lift technologies

- **Reducing Emissions**
  - Natural gas for power generation
  - Controlled Freeze Zone™
  - Carbon capture and storage
  - Global Climate & Energy Project
Current XOM Artificial Lift Portfolio

- About half of our oil production is on artificial lift
- About 75% of that lifted production is on gas lift

Analysis suggests that most gas lifted wells have optimization potential
Artificial Lift Initiatives – Center of Expertise

Focusing on well optimizations to improve base production

- Global Artificial Lift Center of Expertise formed to design, evaluate, and optimize A/L worldwide
- Rotating gas lift team utilizes CO$_2$ tracer technology to conduct real-time analysis and optimization of gas lifted wells
- Current initiative focused on optimizing top tier gas lift wells
Artificial Lift Research and Development

Addressing key artificial lift issues through focused research effort

Research Areas

- Gas Lift
  - Surveillance & Optimization, Automation
- Low Volume Lifting
  - Deliquification
- High Volume Lifting
- AL Equipment Evaluation
  - Southwest Research Gas Flowmeter Trials

Industry Involvement

- Workshops/conferences
  - ALRDC Gas Lift, Gas Well, and Sucker Rod Workshops
  - SPE ESP Workshop and Offshore/Deepwater AL Forum
  - SPE European AL Forum and North American AL Conference
- Tulsa University Horizontal Well AL JIP
Conclusion

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Thank You