

# **UT Energy Week 2015**

Frontier – Safety, Regulation & Environmental Issues
Anadarko Petroleum Corporation - Mozambique

**February 16, 2015** 

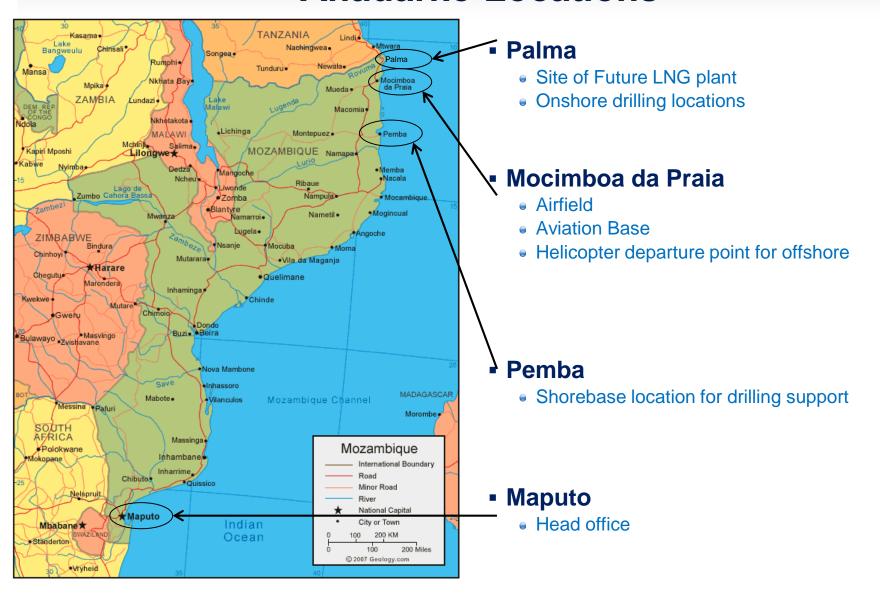


# Mozambique

- Former Portuguese Colony
  - Independence 1975
  - Civil war 1977 1992
- 1990 Constitution
  - Established Multi-party democracy
  - Stable presidential republic
- Economy
  - Based mainly on agriculture
  - Coal, tourism, Oil & Gas
  - Population 24 million
  - Remarkable economic growth of ~8% over the last 15 years



### **Anadarko Locations**



### Frontier Activities – HSE

- Protecting the Environment
- HSE & Regulatory Standards
- Protecting Workforce Health
- Workforce Safety
- Emergency Response

# **Protecting the Environment**

- Environmental Baseline Studies
  - Terrestrial
  - Marine
  - Transition Zones
- Assess Potential Environmental Impacts
- Mitigation of Impacts Hierarchy
  - Avoid
  - Minimize
  - Mitigate (repair / restore)
  - Offset
- Stakeholder Engagement
  - Community Meetings / NGOs

# **HSE & Regulatory Expectations**

- Country Laws / Country Regulations
- Company HSE Programs / Company Values
- Good International Industry Practice
- Lending Institutions
  - IFC Performance Standards
  - Equator Principles
- Stakeholder Engagement
  - Community
  - NGOs

#### **Workforce Health Protection**

- Preliminary Health Baseline Surveys (prior to entry)
- Community Resources available (or not available) for workforce
- International or Regional Health Partner
  - Medical Support
  - Medical Evacuation Plan
- Infectious Disease Mitigation
  - Tuberculosis
  - Malaria
  - Influenza
  - Ebola
- Infectious Disease Corrective Action Plan
  - Medical Evacuation Preparedness

# **Workforce Safety Challenges**

- Local Workforce (non-skilled labor)
  - Life Skills
  - 6HTK = Six Hazardous That Kill
  - 6WPE = Six Ways to Protect the Environment







# **Emergency Response**

- Environmental Incidents / Safety Incidents / Health Incidents
- Evacuation of Personnel (security issues)
- Identify Anticipated Risks / Scenarios
- Risk Assessment Matrix
  - Likelihood / Probability
  - Significance of Event / Severity
- Establish Consistent System (Incident Command System)
  - Emergency Response Team (Local)
  - Incident Management Team (Area Support)
  - Incident Support Team (Remote Support)
  - "Go Team" Concept
- Collaborative Efforts
  - Government Resources & Cooperation
  - Other Oil & Gas Industry in Area
  - Local Industries
  - International Response Efforts

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# **Frontier Activities - HSE**

