

# Tullow Oil An African Success Story



African Energy and Sustainable Development Summit, Dakar, December 2008

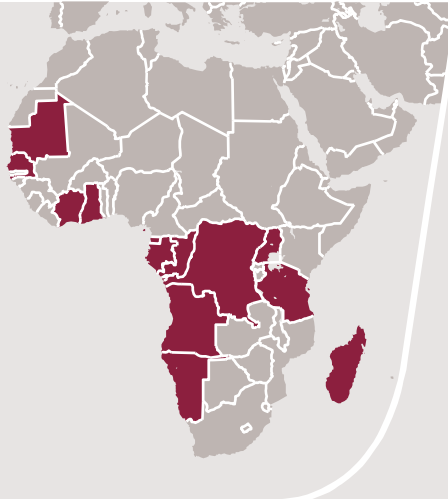
## Tullow's 23 years of progress

- Founded in **Ireland** in 1985 by Aidan Heavey who remains CEO today
- Its first international project was in **Senegal** (1986-2001)
- Expansion across Africa and South Asia – throughout the 1990's
- 2001: - Acquisition of BP's North Sea gas fields
- 2004: - acquisition of SA-based Energy Africa, quoted on the JSE.
- Significant discoveries in Uganda 2006/2007/2008
- Acquisition of the Australia-based Hardman Resources in 2007
- A giant discovery offshore Ghana in 2007 – Jubilee field with 1 Bn bbls expected
- Market value now approx. US\$ 8 Billion, London's FTSE 100 since September 2007
- Developments following recent African exploration success will more than double our commercial reserves over next 2 years

# Zoom Out: - Tullow's Global Footprint

## Africa

- Angola ●
- Congo (Brazzaville) ▲■
- Congo (DRC) ●
- Côte d'Ivoire ●▲■
- Equatorial Guinea ▲■
- Gabon ●▲■
- Ghana ●▲
- Madagascar ●
- Mauritania ●▲■
- Namibia ▲
- Senegal ●
- Tanzania ●
- Uganda ●▲



## Europe

- Netherlands ●
- Portugal ●
- United Kingdom ●▲■



## Europe

- 22,000 boepd
- 3 countries
- 35 licences
- 20 producing fields

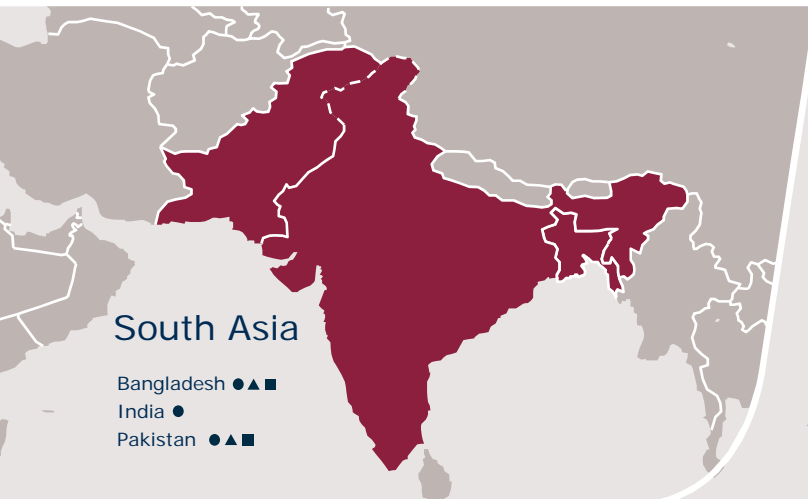
## Asia

- 5,000 boepd
- 3 countries
- 12 licences
- 3 producing fields

Key= Exploration ● Development ▲ Production ■

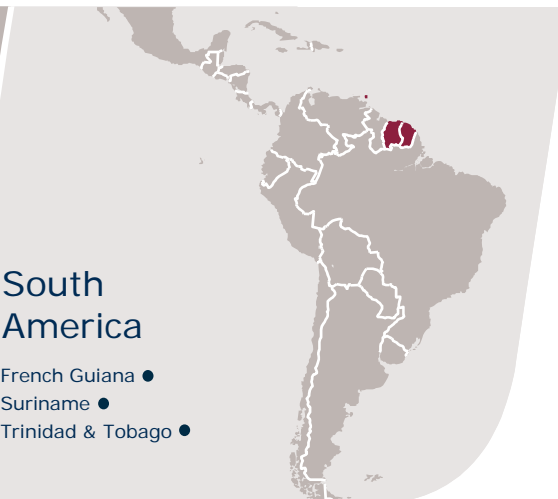
## South Asia

- Bangladesh ●▲■
- India ●
- Pakistan ●▲■



## South America

- French Guiana ●
- Suriname ●
- Trinidad & Tobago ●



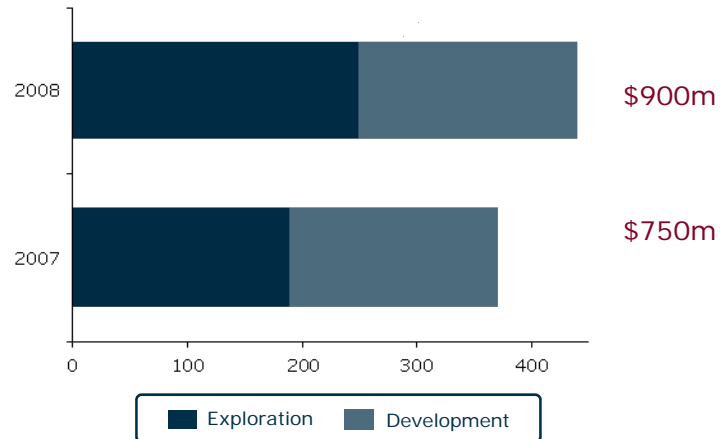
## South America

- 3 countries
- 5 licences

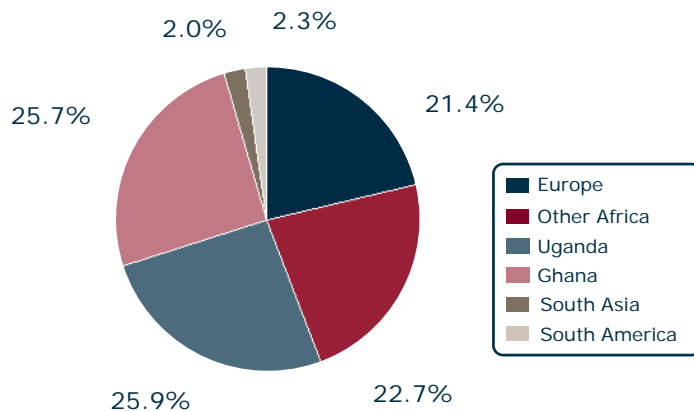
## Africa

- 42,000 boepd
- 13 countries
- 49 licences
- 17 producing fields

# Performance Indicators showing importance of Africa



**2008 Forecast Capex by Core Area  
\$900 million**



- Recent investment programmes driven by success in Africa - Ghana/Uganda
- 2008 capital split 40:60 between Development and Exploration/Appraisal, focused on key assets
- **75% of 2008 capital budget due to be spent in Africa - \$670m!**
- Capex driven by success in Ghana and Uganda (together 52% of total 2008 capex, 60% of overall exploration expenditure)
- But UK allocation also likely increase as new infill and development opportunities sanctioned

# Production Summary: African contribution increasing

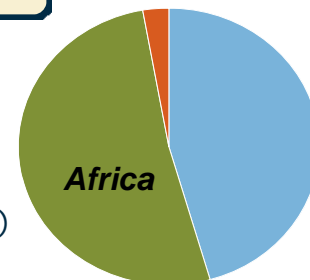


- African proportion of production has increased from 51% (2006) to 55% (2007)
- 1H 08 production >70,000 boepd

## 2006 Production

Total = 64,720 (boepd)

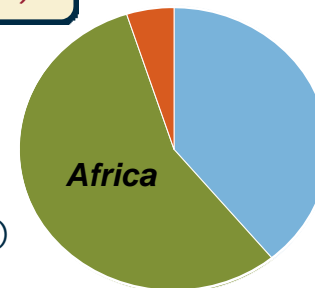
- Africa **51%** (33,418)
- Europe **46%** (29,532)
- South Asia **3%** (1,770)

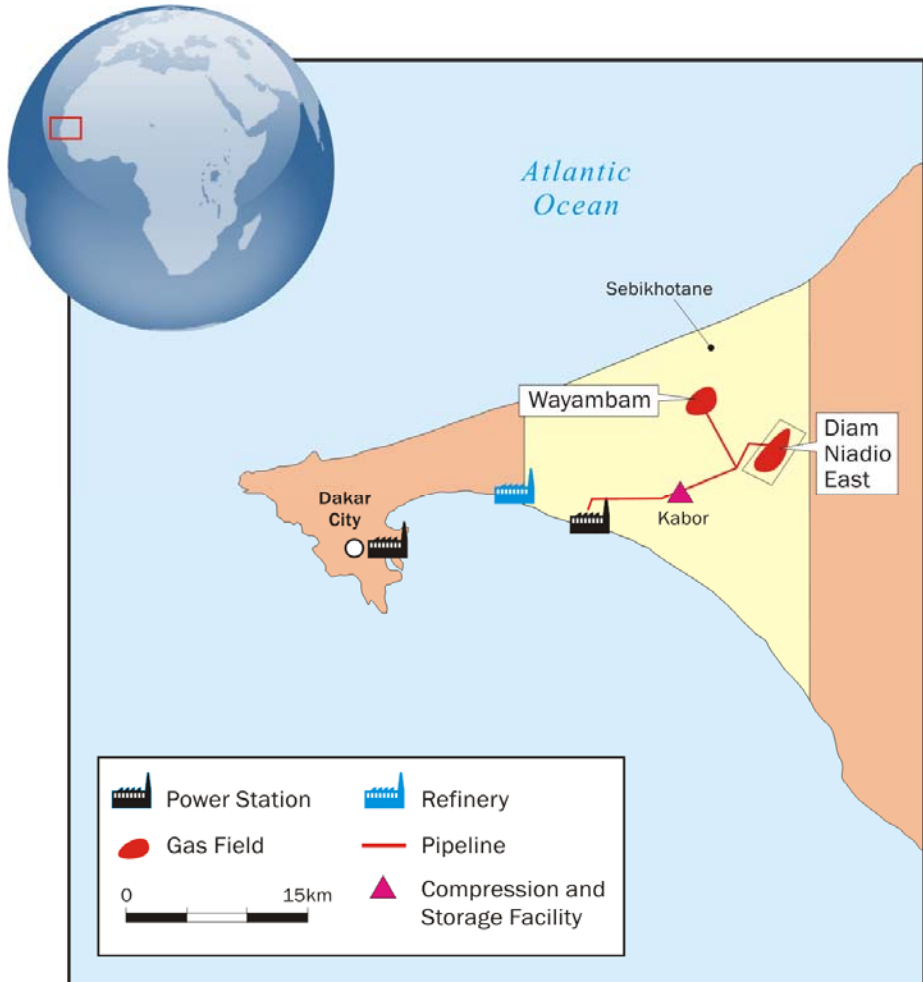


## 2007 Production

Total = 73,100 (boepd)

- Africa **55%** (40,300)
- Europe **39%** (28,500)
- South Asia **6%** (4,300)





## Tullow's *Starter Project* was in Senegal, West Africa

- Tullow's first project – E&P plus gas to power.
- Excellent relations with Government, Petrosen, Senelec and local community
- Remote from West African mainstream oilfield, so low-cost operator skills developed
- Graceful exit in 2001 after 15 years only to return again in 2004

# Zoom in: Tullow's African portfolio

*Mauritania*

*Sunu Gal*

*Ivory Coast*

*Ghana*

*Eq. Guinea*

*Gabon*

*Congo-B*

*Congo-DRC*

*Angola*

*Namibia*

*Madagascar*

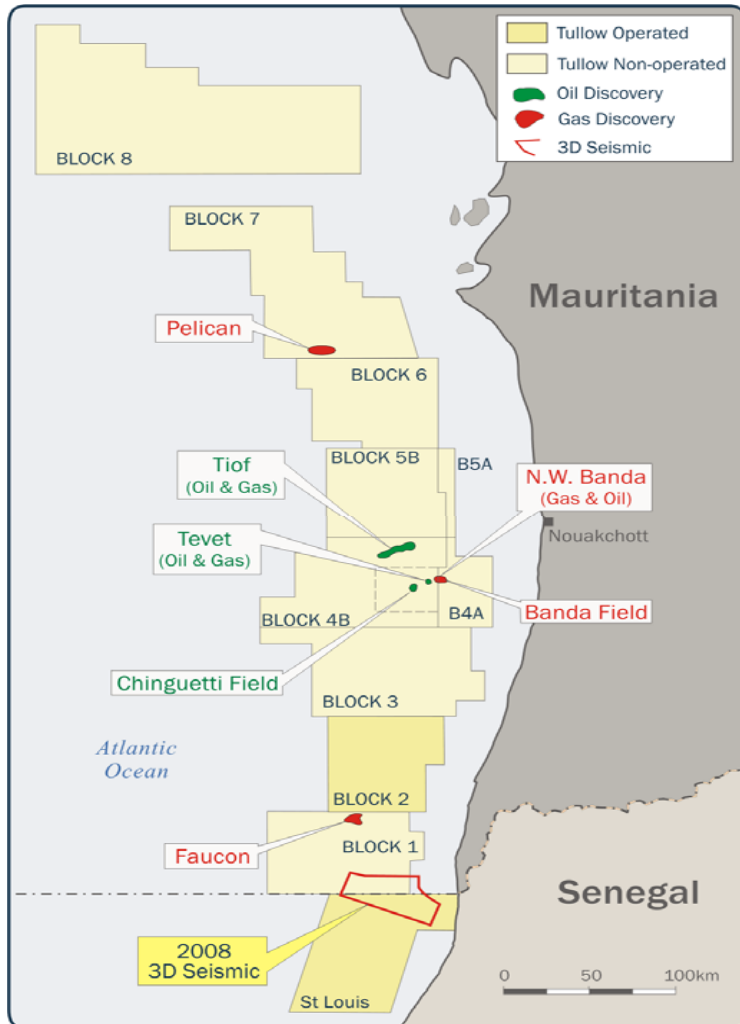
*Tanzania*

*Uganda*

## Extensive portfolio

- Interests in 13 countries, 49 licences and 17 producing fields
- Major projects with > billion barrel potential in *both Ghana and Uganda*
- Current African production of over 42,000 boepd
- Continually evaluating new venture opportunities





## Overview

- Tullow has a material position in Mauritania
- 9 blocks in Mauritania/Senegal
  - Producing Chinguetti oil field
  - Tiof and Tevet oil discoveries
  - Banda and Pelican gas discoveries
  - Significant exploration potential

## Key operational highlights

- Current gross production of ~17,000 bopd
- Remedial intervention work on three Chinguetti wells completed in first half of 2008
- Chinguetti infill well programme ongoing
- Two successful Banda appraisal wells drilled in April and Oct 08. About to test.
- Banda development options include CNG
- Development options for Tiof under review
- Billion barrel upside potential in Cretaceous oil and gas plays identified

## Equatorial Guinea

### Okume and Ceiba

- Production performance continues to exceed expectations at over 110,000 bopd
- 25 wells drilled to date on Okume
- Ceiba infill drilling programme completed

## Congo (Brazzaville)

### M'Boundi

- Production stabilised at 41,000 bopd
- Asset sale to KNOC for \$435 million announced in January 2008, expected to complete by year end.

## Côte d'Ivoire

### Espoir

- Strong production performance ~ 30,000 boepd
- FPSO upgrade work to optimise recovery ongoing

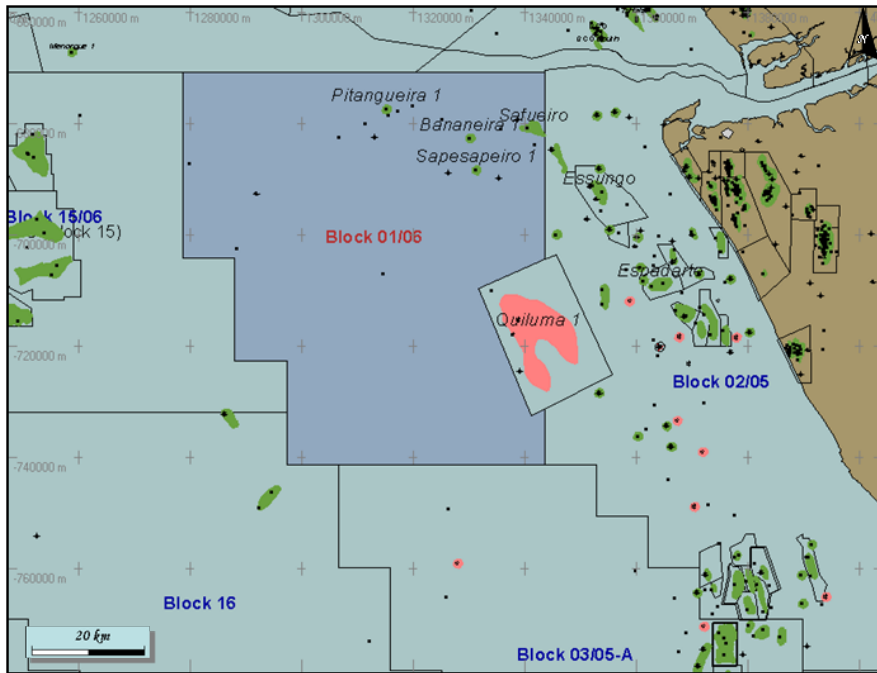


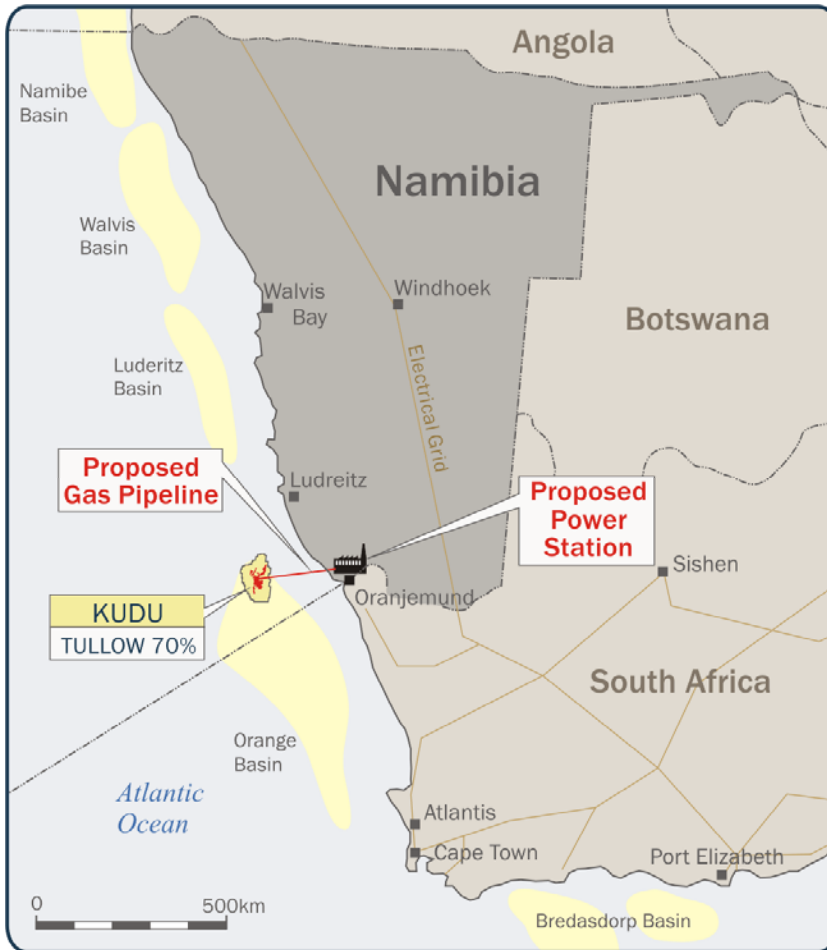




## Operated Block 1/06

- Interest:
  - Participating: 50%
- First period:
  - 4 years: 2006 – 2010
  - 3 wells / 600 km<sup>2</sup> 3D
- Second period:
  - 3 years: 2010 – 2013
  - 2 wells
- Expected Work program and schedule:
  - Existing 3D reprocessing is ongoing
  - 600 km<sup>2</sup> of 3D acquisition in 2008
  - 2 appraisal wells in 2008/9 (Pitangueira and Bananeira)
  - 1 wildcat in 2010

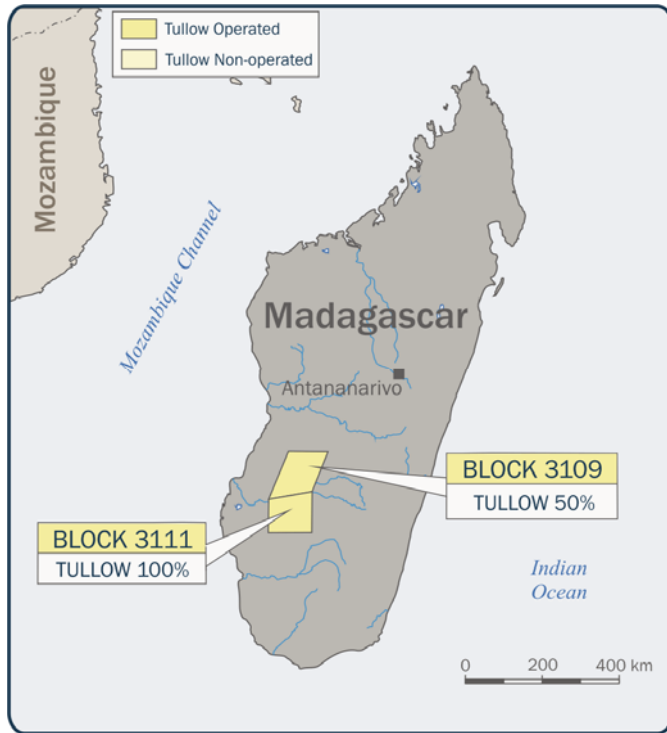




## Overview

- Offshore gas field with over 3 TCF of 2P resources
- Tullow Operator with 70% working interest
- Namibia needs to develop at least 300MW of indigenous power
- Currently working with Namibians on gas-to-power options
- Alternative options such as marine CNG also being considered

# Tanzania and Madagascar: campaigns for the future



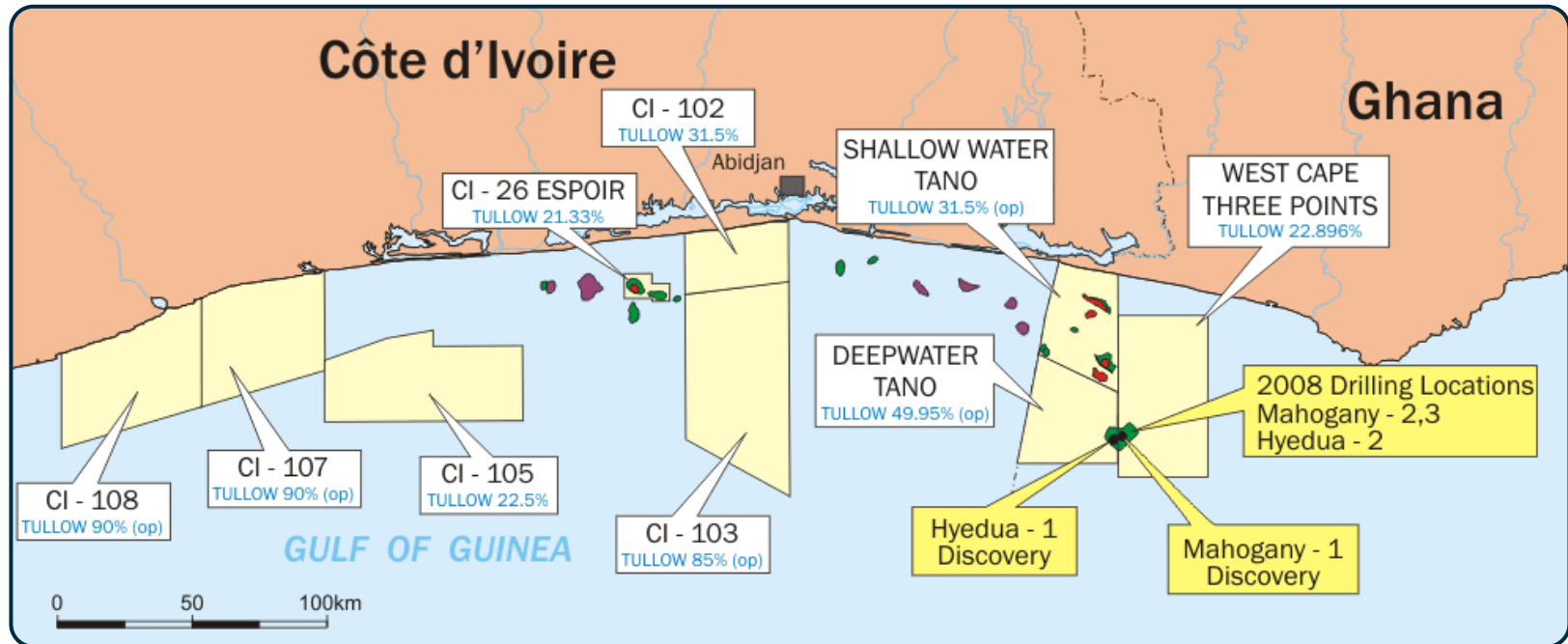
## Madagascar

- Leads identified and ranked, seismic planned for mid-2009 to coincide with weather window
- Obtained environmental permits to acquire new seismic
- High-grade select prospects for drilling campaign in early 2010



## Tanzania

- Completed seismic interpretation of Ruvuma Basin
- Prospect inventory developed and two selected for drilling
- Environmental impact assessment studies for two sites submitted
- Two well drilling campaign in Q1 2009



## Building the business

- First licence signed in 1996
- Production from Espoir East and West
- Five CDI licences signed since 2004
- Three Ghana licences added in 2006
- Potential shallow water developments in Ghana

## Exploration

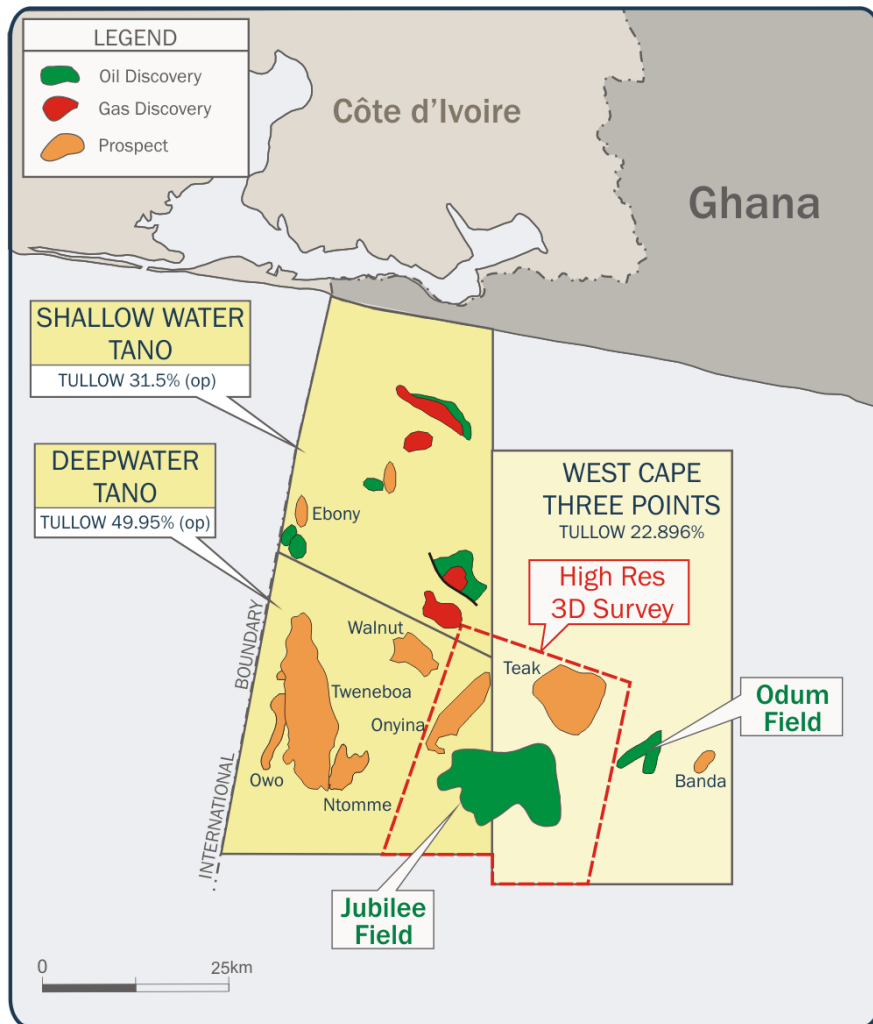
- Mahogany discovery - June 2007
- Hyedua discovery – August 2007
- Odum discovery – February 2008
- Regional exploration and appraisal campaign 2008/9

# It is very rare....



- ...for a new African country join that *elite* "Oil Producers Club"
- ...for a new sedimentary basin join the list of oil-productive basins
- ..for a new exploration play unlock potential and de-risk an entire region
- But thankfully it does still happen and it is happening right **now** in two African countries –
- ***Ghana*** and ***Uganda***
- ....*and* for the same African Frontier Explorer –
- ***Tullow Oil!***
- (Q for debate in the bar this evening: ***How long is it since one of the Oil Majors put a new African Nation on the oil map? 10? 20? 40 years?***)

# 1. GHANA: Tullow's world-class Jubilee field development



## Overview

- Ghana licences signed – March 2006
- Jubilee Field discovery – June 2007
- Tullow designated as field Operator – Feb 2008
- M-2 establishes major upside – May 2008
- Phase 1 sanction - Q4 2008

## Exceptional field characteristics

- Large continuous accumulation
- High well deliverability – 20,000+ bopd
- Light oil – 37 degrees API

## Appraisal continues to define potential

- Four deepwater rigs contracted
- Four further appraisal wells planned
- Gross resource potential 500 – 1000 – 1800 mmbo
- Significant associated gas resources ~ 800bcf

## Phase 1 FPSO Development under way

- Phase 1 to develop ~ 300 to 350 mmbo
- \$3.1bn capex anticipated with leased FPSO
- Project Sanction – Q4 2008
- First oil targeted for 2H 2010

# Ghana: Rig capacity and initial drilling plan

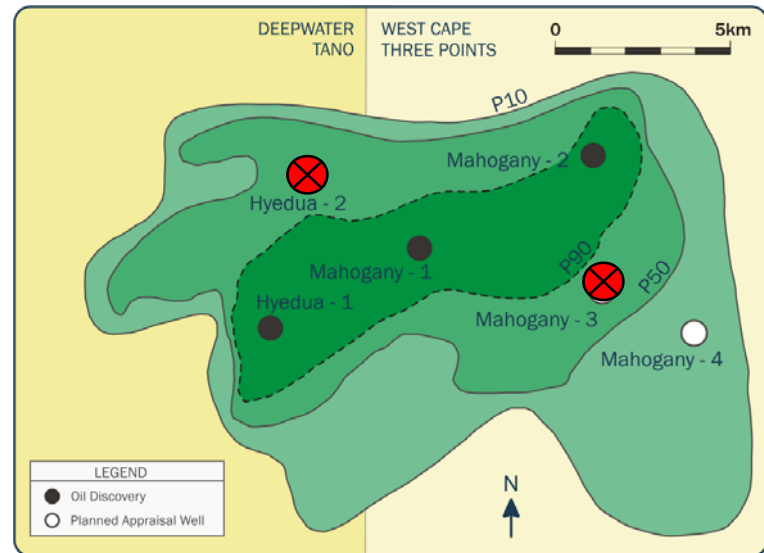
## Contracted Deepwater Rigs

- Blackford Dolphin – October (220 days)
- Eirik Raude – November (3-5 years)
- Aban Abraham – February 2009 (1 slot)
- Atwood Hunter – April 2009 (3x9 months)

## Contracted Jack-up Rig (Tano Shallow)

- West Ceres – October (1 slot)

## Jubilee Appraisal Programme



## Near-term Ghana

RIG	2008				2009					
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Blackford Dolphin		Hyedua-2 + DST				M-1 DST	2 x Jubilee			
Eirik Raude			Mahogany-3		Tweneboa		Multiple Jubilee wells			
Aban Abraham						Teak				
Atwood Hunter								Mahogany-4		Onyina

Appraisal  
  DST  
  Development  
  Exploration



## Development concept

- Phased FPSO/subsea development
- Initial focus on “core area” development
  - Production of 120 kbopd
  - Sanction expected in 2008
  - First oil targeted in 2010
- Field upside likely to require multiple FPSO's

## Development project initiated

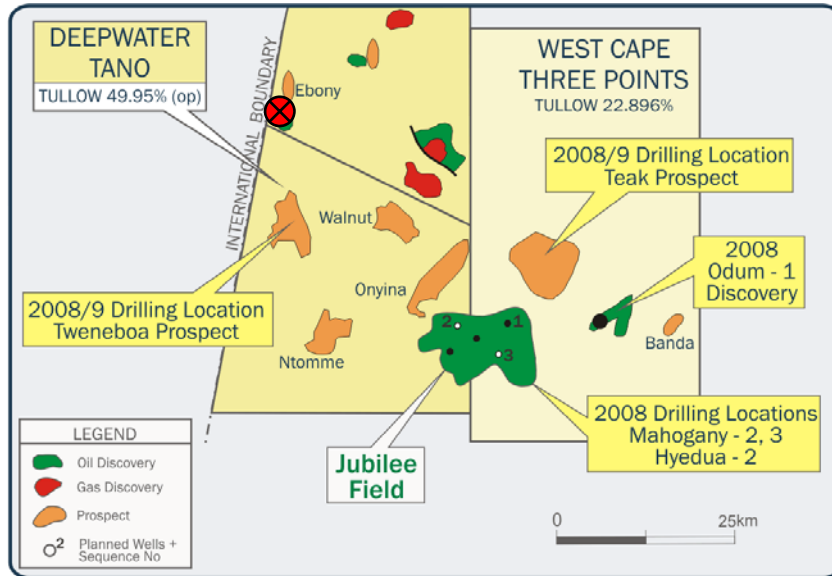
- Integrated Project Team formed
  - Pre-development engineering work ongoing
  - Market enquiries for long lead equipment issued
- Development drilling
  - Rig capacity secured
  - Execution in 2H 2008
- Gas commercialisation work underway

## Critical path to deliver early development

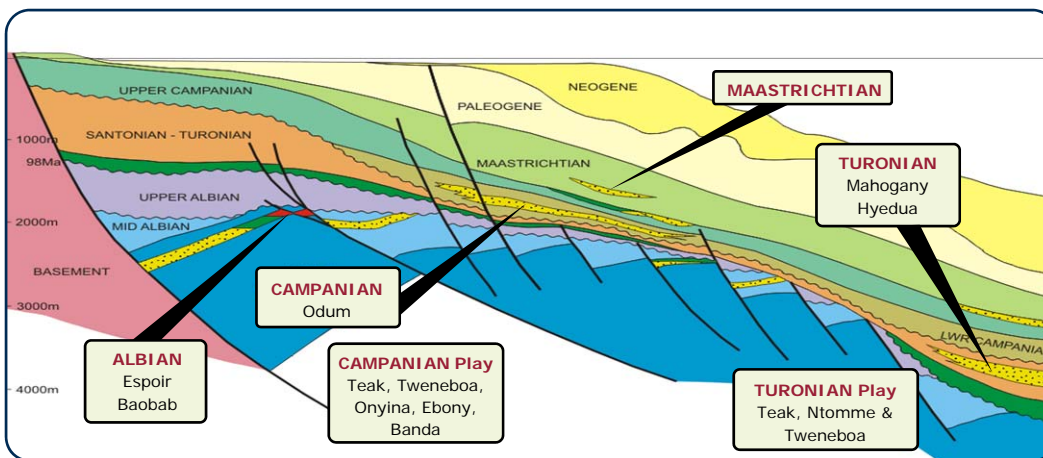
- 3D/4D Seismic - acquired
- Appraisal drilling – rig secured & under way
- Development drilling – rig secured & start 2H08
- FPSO – Tenders received, consistent with schedule
- Subsea equipment - tenders issued

Jubilee partnership on track to deliver early development

# Ghana: Wildcatting underway again (expect news Jan 09)

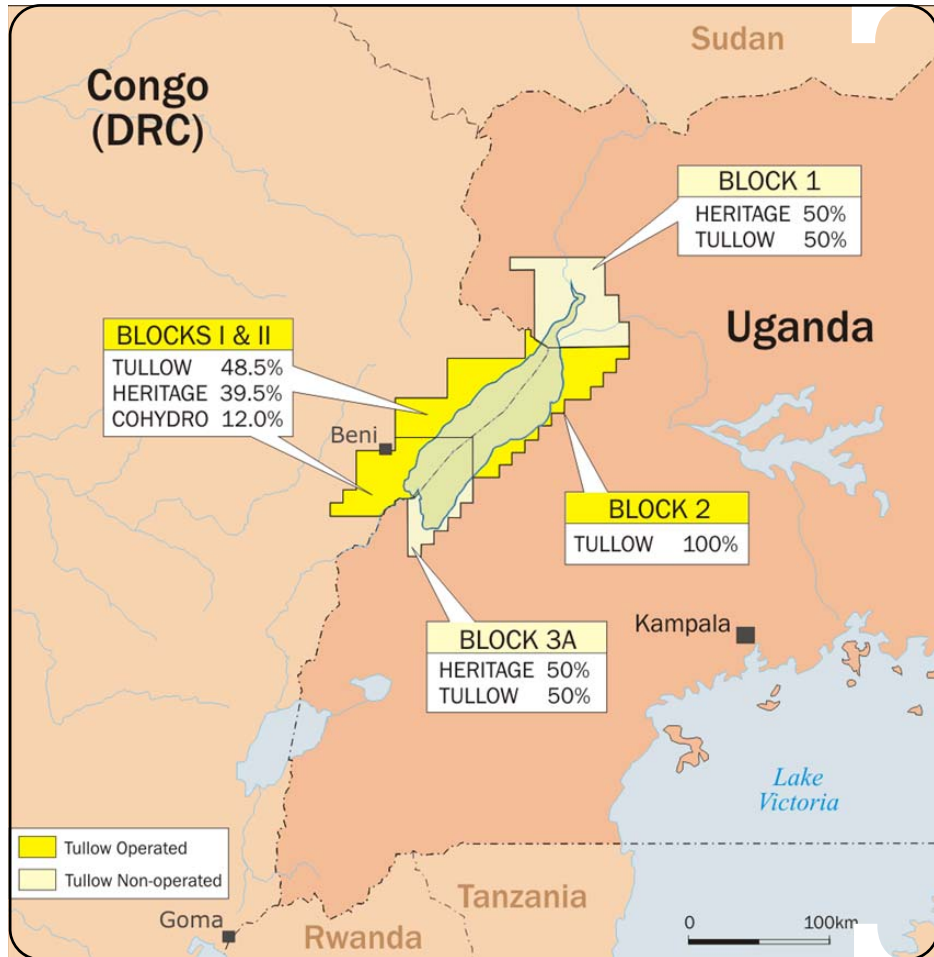


- West Africa Transform Margin Campaign delivers two major new plays
  - Turonian play - Jubilee Field
  - Campanian play - Odum-1 discovery
- Teak and Tweneboa to be drilled in next 9 months



Lead	Gross Upside (mmbo)
Teak	750
Tweneboa	500
Onyina	200
Ntomme	100
Walnut	100
Banda	50

## 2. Uganda (and DRC): - Bold risks leading to success



### Basin-wide strategy

- Leverage knowledge and influence
- Swiftly test billion barrel basin potential
- Scaled development options

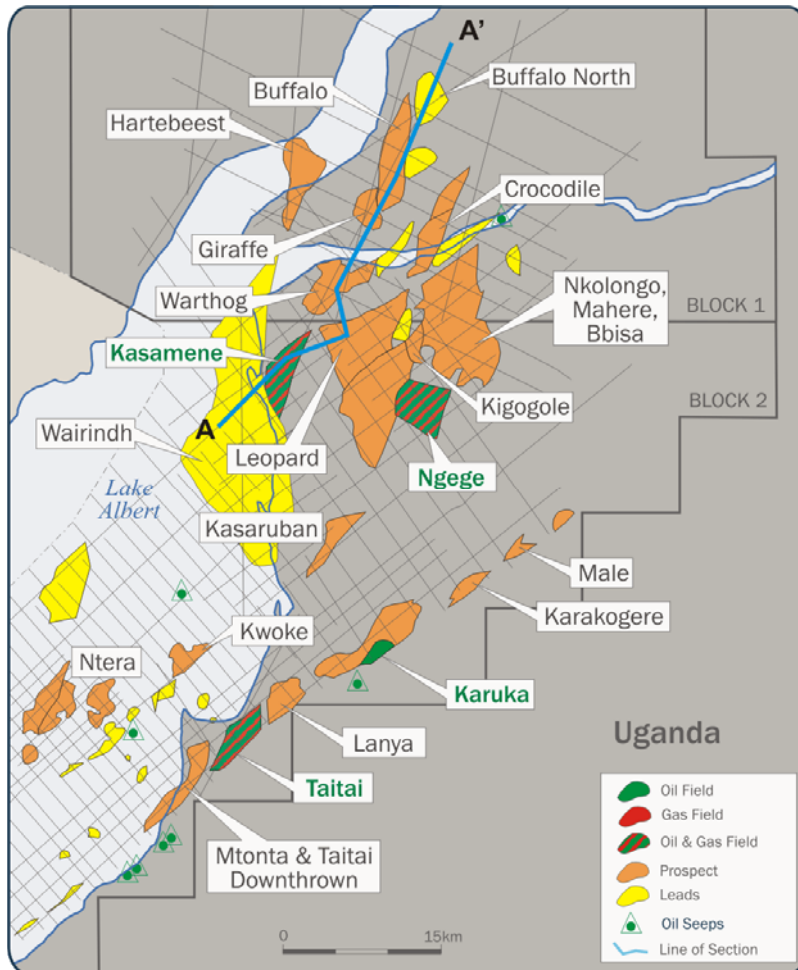
### World-class basin potential

- Fourteen wells : Fourteen successes
- First oil & gas flow tested in Uganda
- Highly productive reservoirs, 33° API

### Challenges

- Landlocked (1,300 km from ocean)
- Establish reserves threshold for export
- Balancing long & short term goals
- Political issues but privileged role to be catalyst for good in troubled region





## Immediate success from Butiaba campaign

- 2D seismic delivers prospects and discoveries:
- Taitai in May (EscarPMENT fan play)
- Ngege in June (Victoria Nile delta play)
- Karuka in July (EscarPMENT fan play)
- Kasamene in August (Victoria Nile delta play)
- Kigogole in September (Victoria Nile delta play)

## Butiaba campaign entering next phase

- Inventory drill-out continues apace
- Extending material Victoria Nile delta play
- Block 1 wells Q3/4 2008
  - Warthog – discovery Oct '08
  - Buffalo
  - Giraffe
- Upside to escarpment fan play being assessed for 2009 drilling
- Transition zone seismic firms up nearshore potential for 2009 drilling
- Preparing to source second light rig for appraisal

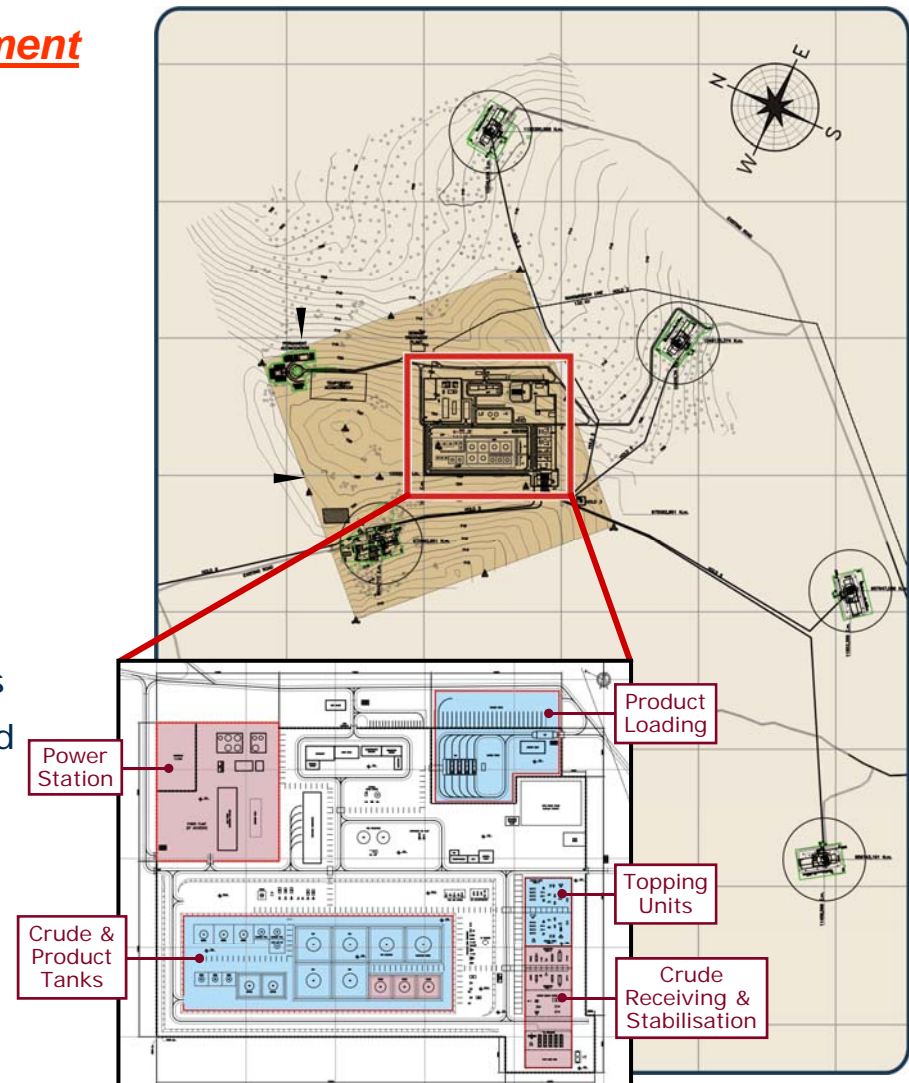
## ...a major objective for our Host Government

### Mputa EPS Development plan defined

- Appraisal data incorporated
- Production capacity 4,000 bopd
- Topping plant to deliver product
- HFO utilised for power generation
  - Manve power plant Kampala – 50MW
  - Local power generation – 50MW
- FEED under way – Wood Group

### Timeline to First Oil

- Jacobsen Elektro finalising power agreements
- Crude and product agreements being finalised
- Rigorous EIA process under way
  - EIA submitted
  - Public enquiry held
- Government sanction expected Q4 08
- First oil early 2010



## **A Continent *overflowing* with opportunities**

- A number of largely-unexplored oil basins
- Other mature basins where majors are exiting
- Significant areas currently unlicensed
- A Continent-wide belief by Africans in the power of the private sector, commerce, business, trade and win-win deals to drive growth and uplift the population
- Success in Africa is admired and not begrudged
- Far less “above ground” risk than most outsiders imagine.
- In 23 wonderful years on the Mother Continent, Tullow Oil has never looked *back*, never looked *down* and never looked *over its shoulder!*

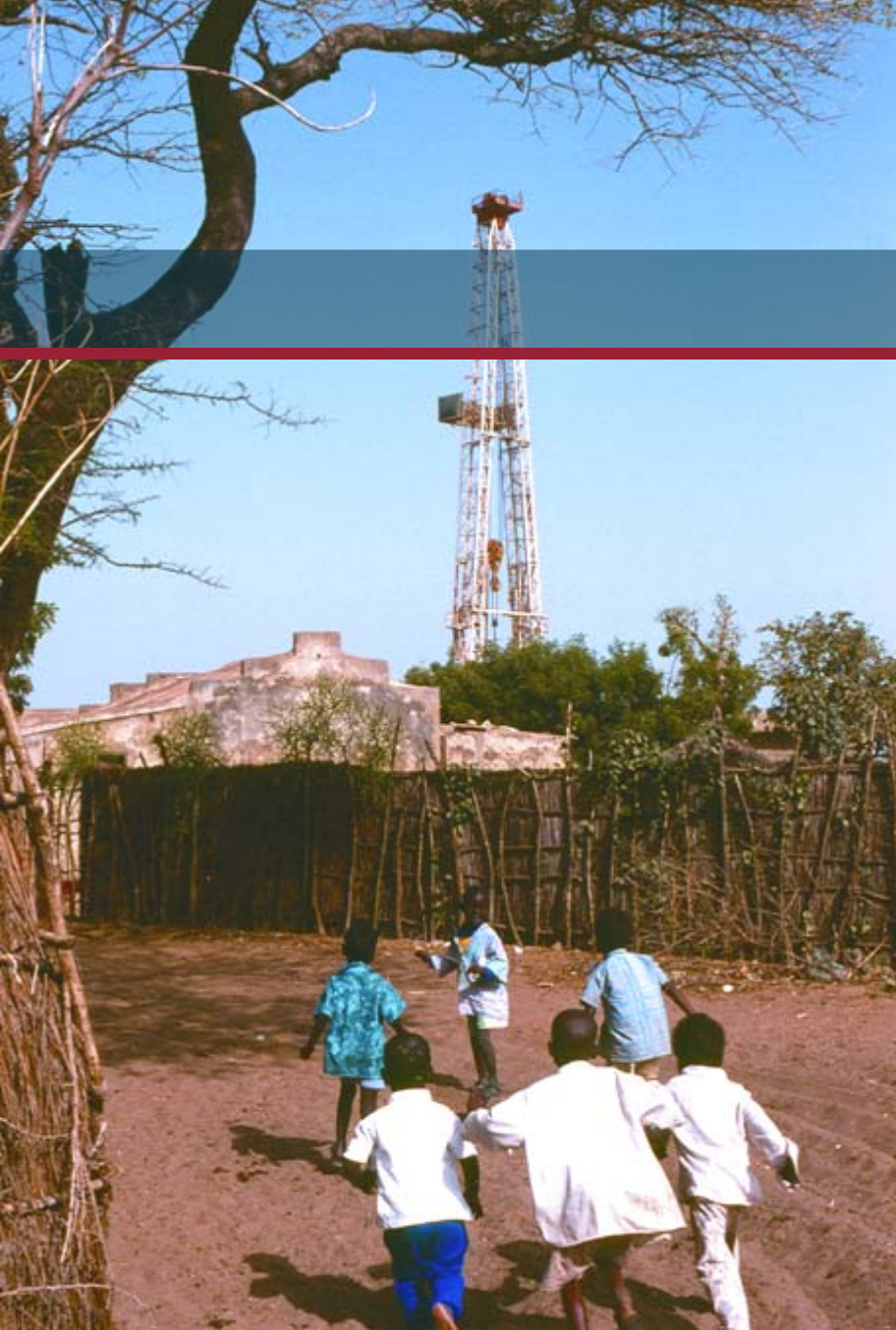


# Why Tullow for Africa?



- Tullow started out in onshore Africa (Senegal)
- We have a great record of oil exploration success generally but particularly in Africa's frontier areas
- Confidence to go out and *buy* Africa-focused companies complementing our "organic" growth
- Full Operatorship capability on/offshore, oil/gas, exploration/development
- Strong, experienced team: - geologists, geophysicists, drillers, engineers, financiers and even *talkers* - all with a wealth of relevant **African** expertise.
- Unlike many, Tullow is delighted to work onshore Africa, take domestic market risk in Africa, go "downstream" in Africa and embrace African shareholders
- **In summary:- *for Tullow Oil, think Africa and for African oil, think Tullow!***





***Dieuredieuf Senegal!***

***Le succès énorme du  
Tullow Oil sur le  
Continent mère est  
grâce à vous***