



Ministry of Mines and Energy, Namibia

Namibian Petroleum Industry. An overview

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Petroleum Commissioner**

**AAPG Singapore,
2012**



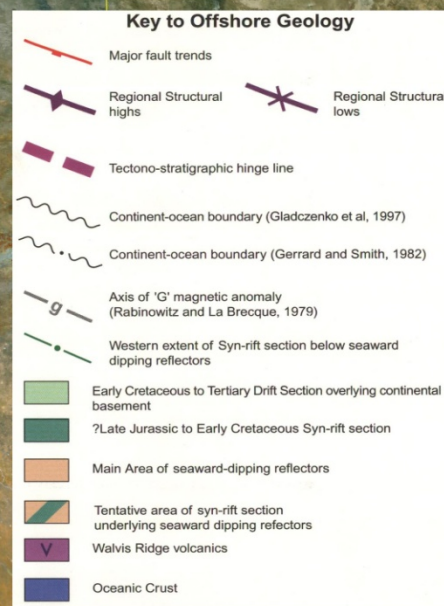
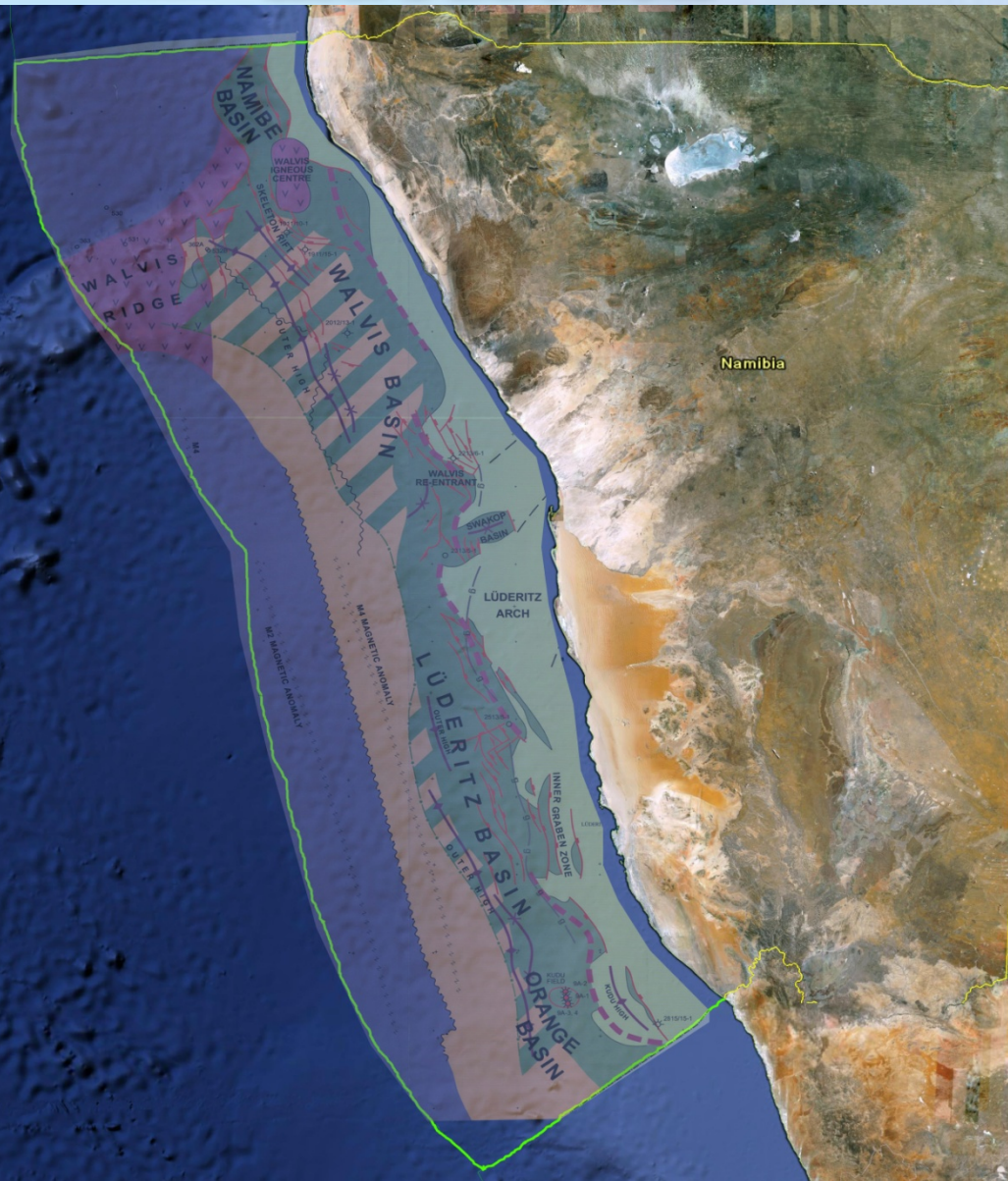
Presentation outline

- Introduction
- Hydrocarbon regulatory system in Namibia
- Update on the current licencing system
- Update on Exploration activities
- Main players and entry of majors
- Farm-in opportunity
- Main exploration activities conducted recently
- Conclusions



Introduction

Namibia is a South-west Atlantic coastal democratic state, and its offshore area represents part of the African geological margin. As a Coastal State, the country has its Exclusive Economic Zone delineated with an area of 564,748 km², of which 86,698 km² belongs to the Namibian shelf



Hydrocarbon regulatory system

The legislative framework governing the Namibian upstream oil and gas business is modern and well developed, and has been specially formulated for the international oil industry.

The main legal documents that regulate the oil and gas activity in Namibia are:

- [Petroleum \(Exploration and Production\) Act, 1991 \(Act 2 of 1991\)](#);
- [Petroleum Taxation Act, 1991 \(Act 3 of 1991\)](#);
- [Petroleum Laws Amendment Act, 1998](#) (Act 24 of 1998); and the
- [Model Petroleum Agreement](#) (MPA), 2007.

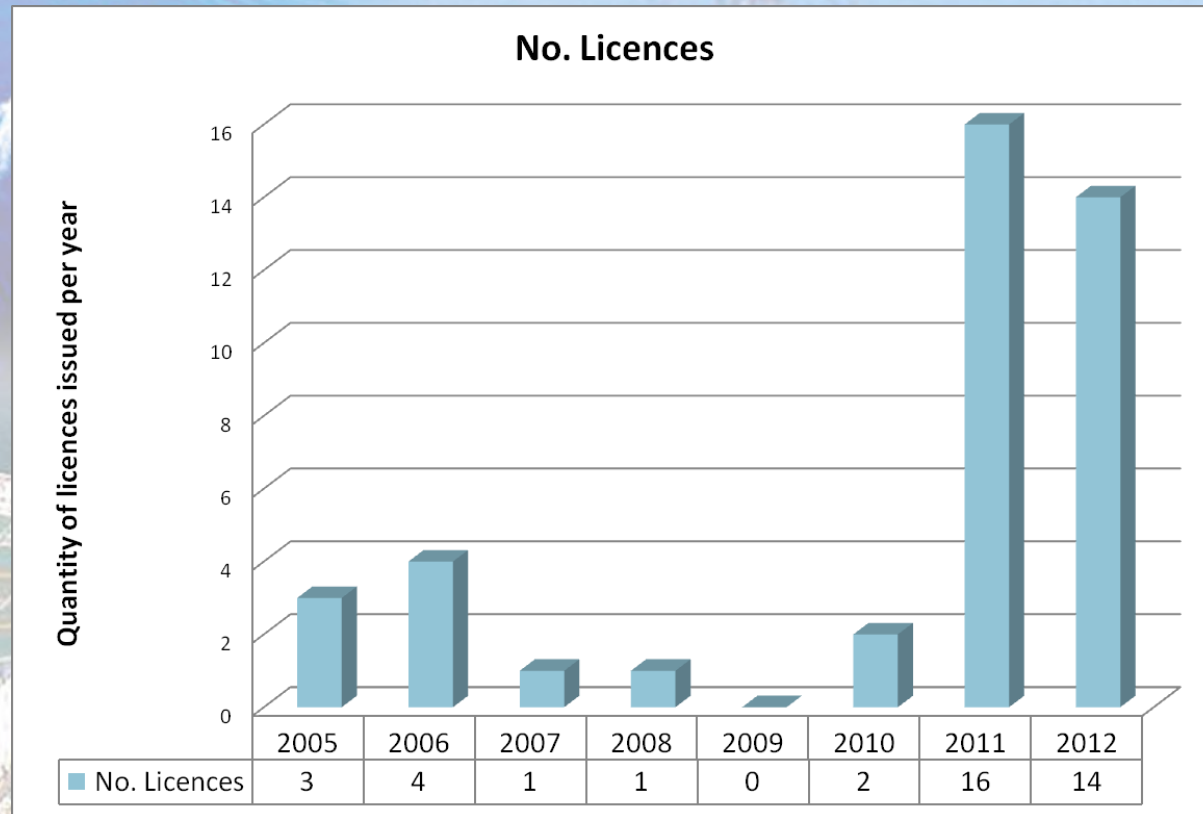


Update on the current licencing system

Since 1999 the Government of the Republic of Namibia had an Open Licensing System, exhorting to any interested company to apply in an easy and strait forward way for Reconnaissance, Exploration and Production licences.

From 2011 to date 30 licences have been awarded. The increase of the interest has been driven mainly by the price increase in the international market and the huge Namibian hydrocarbon potential.

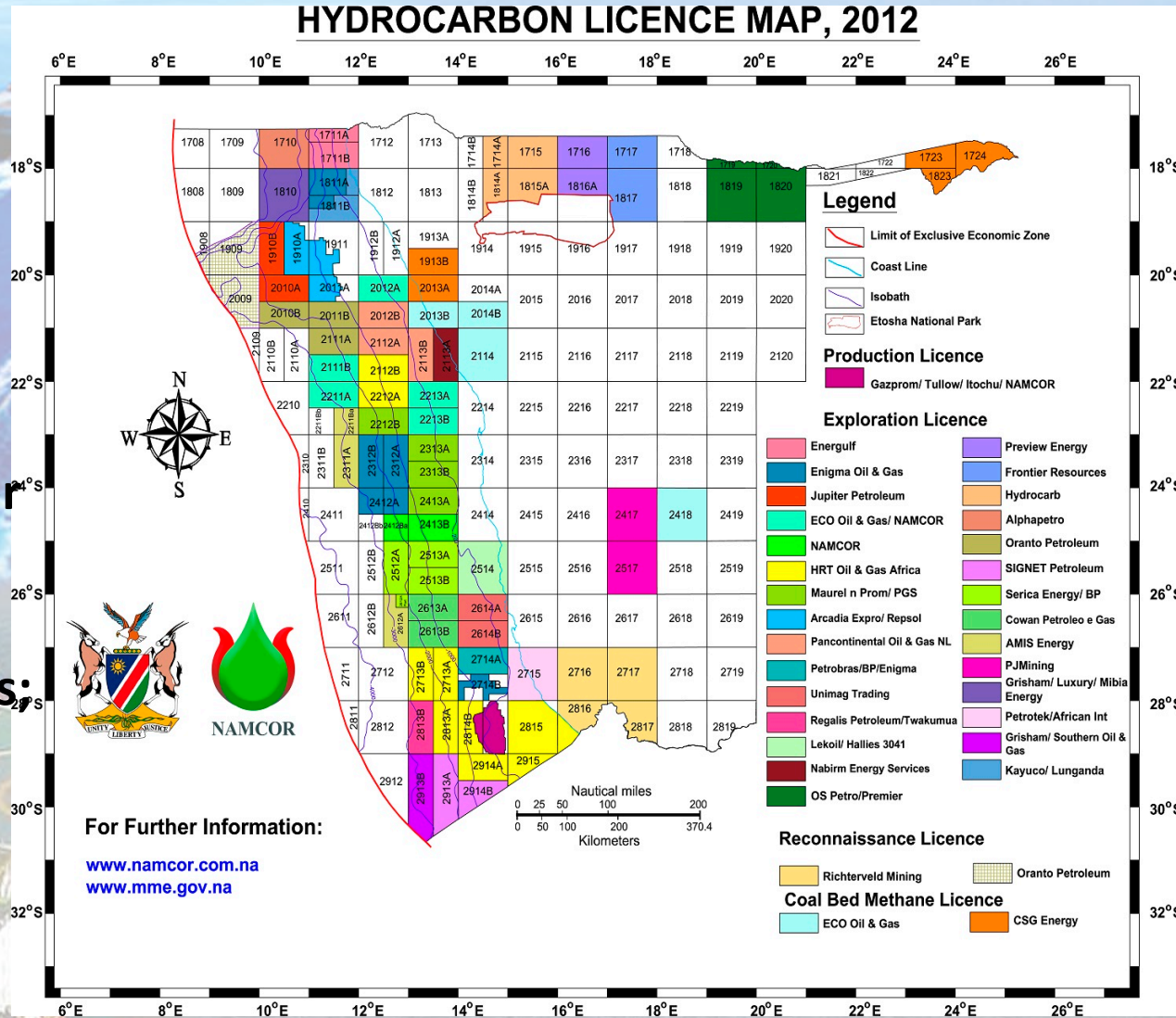
Recently the MME closed the open licencing system until further notice.



Update on the current licencing system

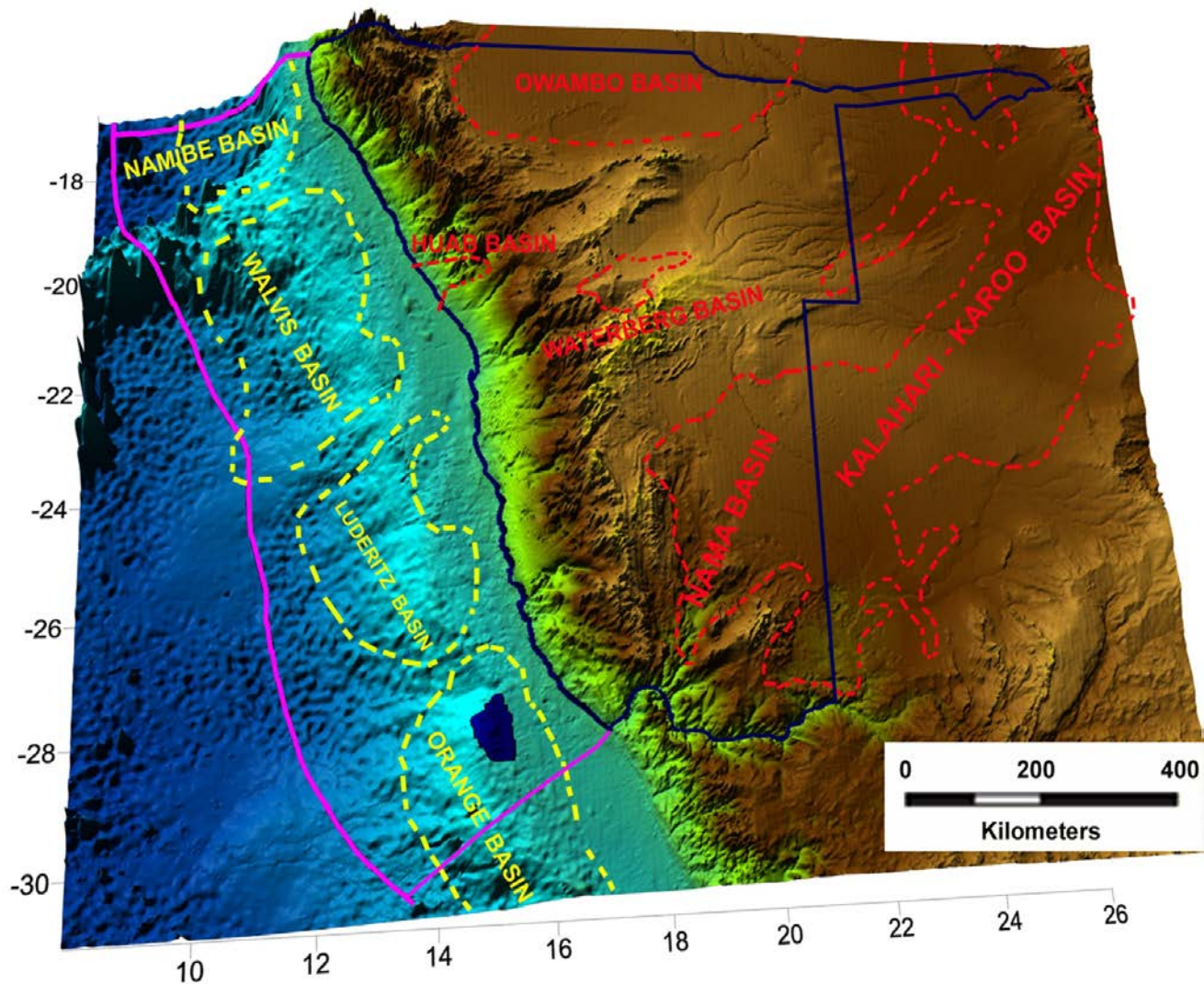
The main reasons for closing the licencing system were :

- most of the more prospective blocks are already awarded;
- remaining blocks are in deep and ultra-deep water depths;
- Need to mature the existing exploration blocks;
- Too many new applications even in areas of very low prospectivity; among others.



Update on Exploration activities

The exploration activities are being conducted in Namibia in all of the main sedimentary basins. The entrance of international majors has substantially improved the petroleum geology knowledge of Namibian basins by introducing and applying top market technologies.

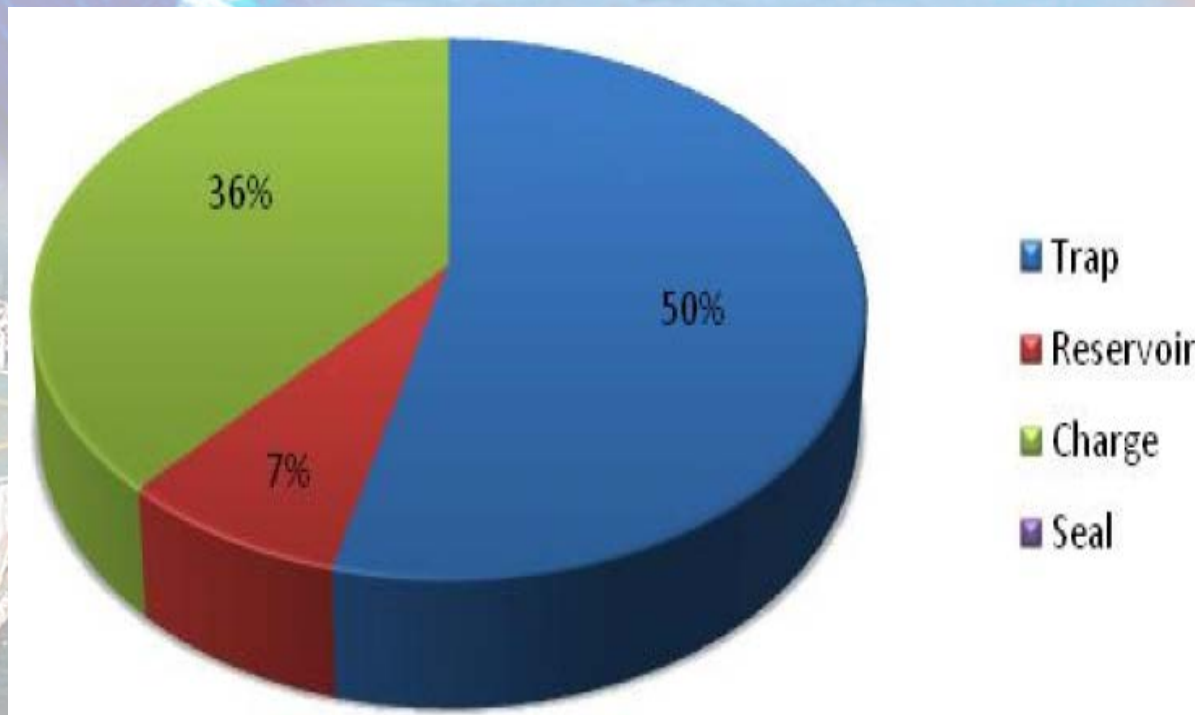


Update on Exploration activities

The systematic review and analysis of the existing exploration data is helping to improve exploration ideas, implement new suitable procedures according to our specific conditions, and also to organize, design and conduct improve the value chain of hydrocarbon exploration.

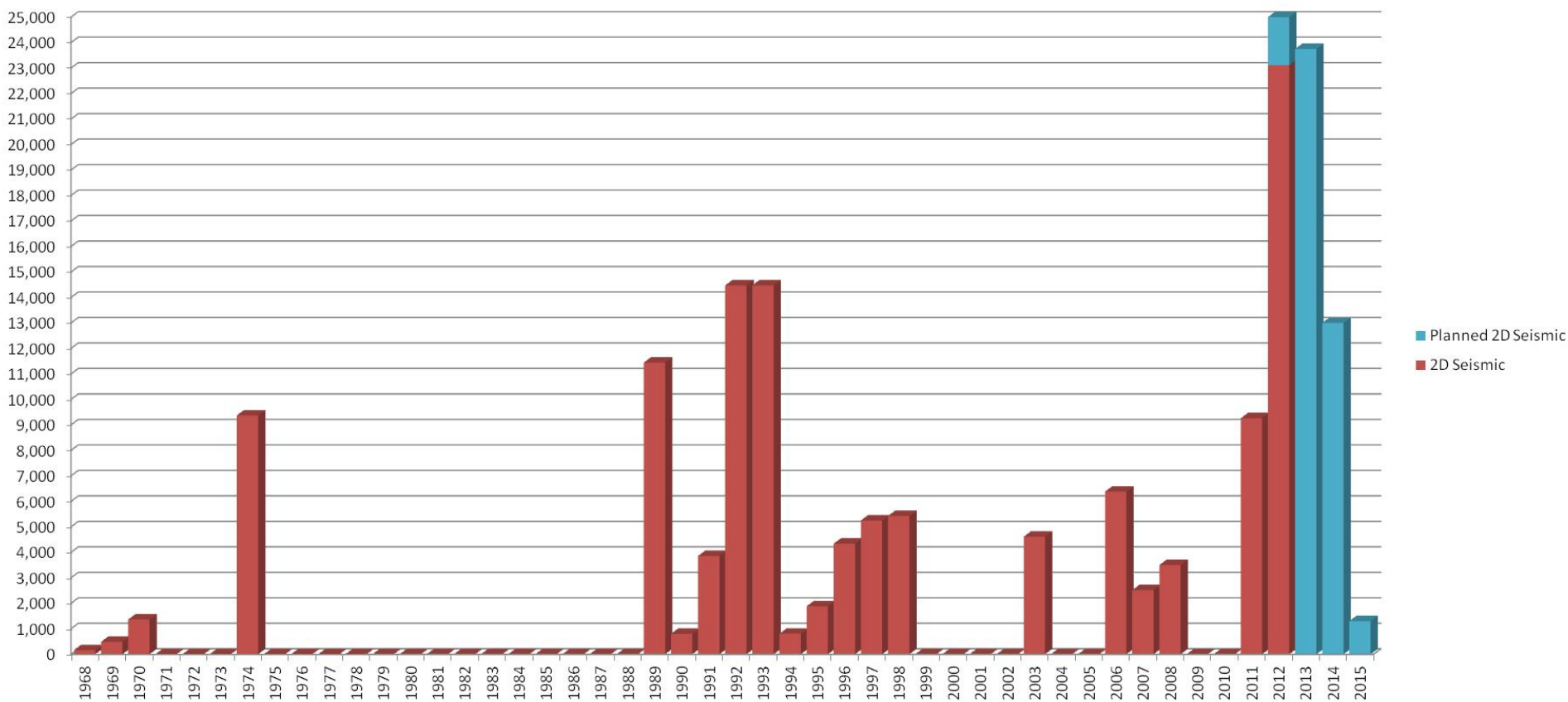
For example: the analysis of failure of exploration wells shows that the main reason of dry holes is due to no confirmation of the traps and secondly the charge.

Most of the wells were drilled on basis of the 2D that's why the high uncertainty of the trap comes from. To improve the certainty and lower the risk, 3D data is needed and wells must be drilled on the basis of the 3D data, which is more suitable for mapping stratigraphic and subtle traps.



Update on Exploration activities

Exploratory data collection through time

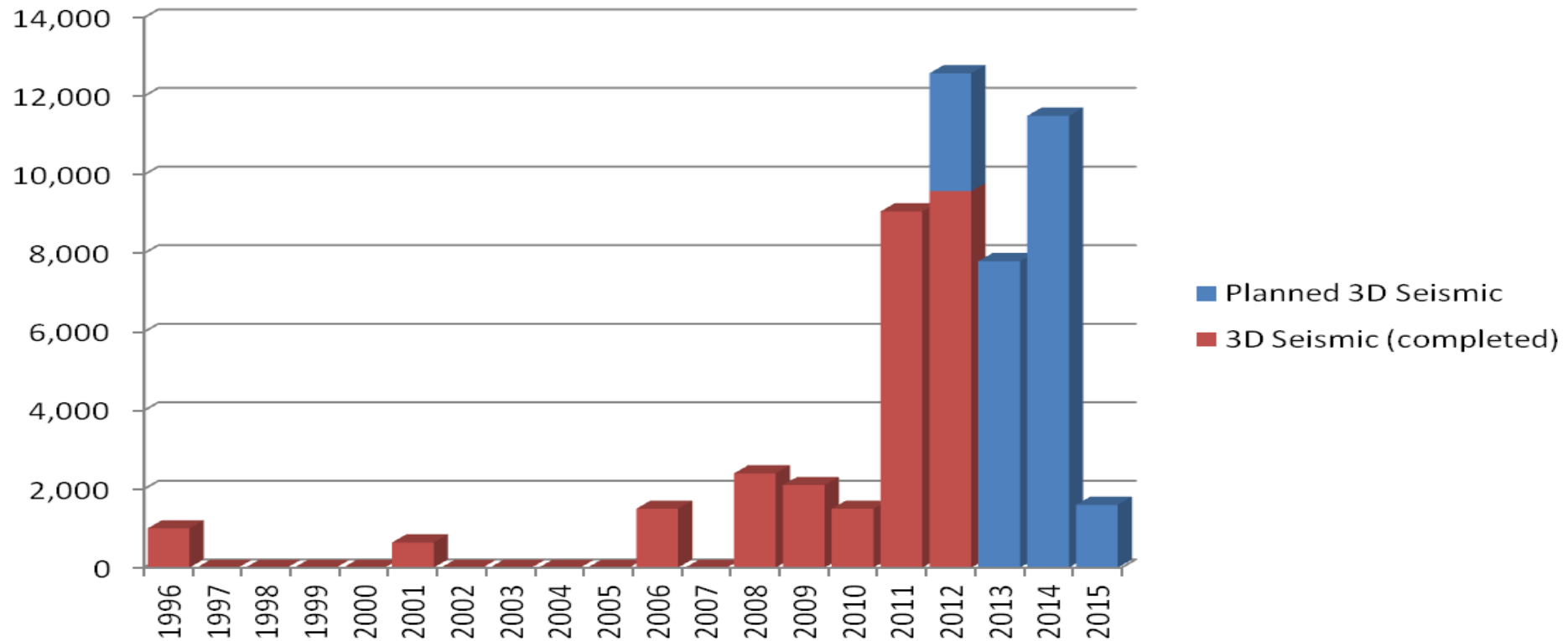


123,509 km of 2D seismic to date. Unprecedented amount for one year in 2012 with a total of 23,114 km basically due to the spec survey in deep and ultra-deep waters of the Exclusive Economic Zone.



Update on Exploration activities

Exploratory data collection through time

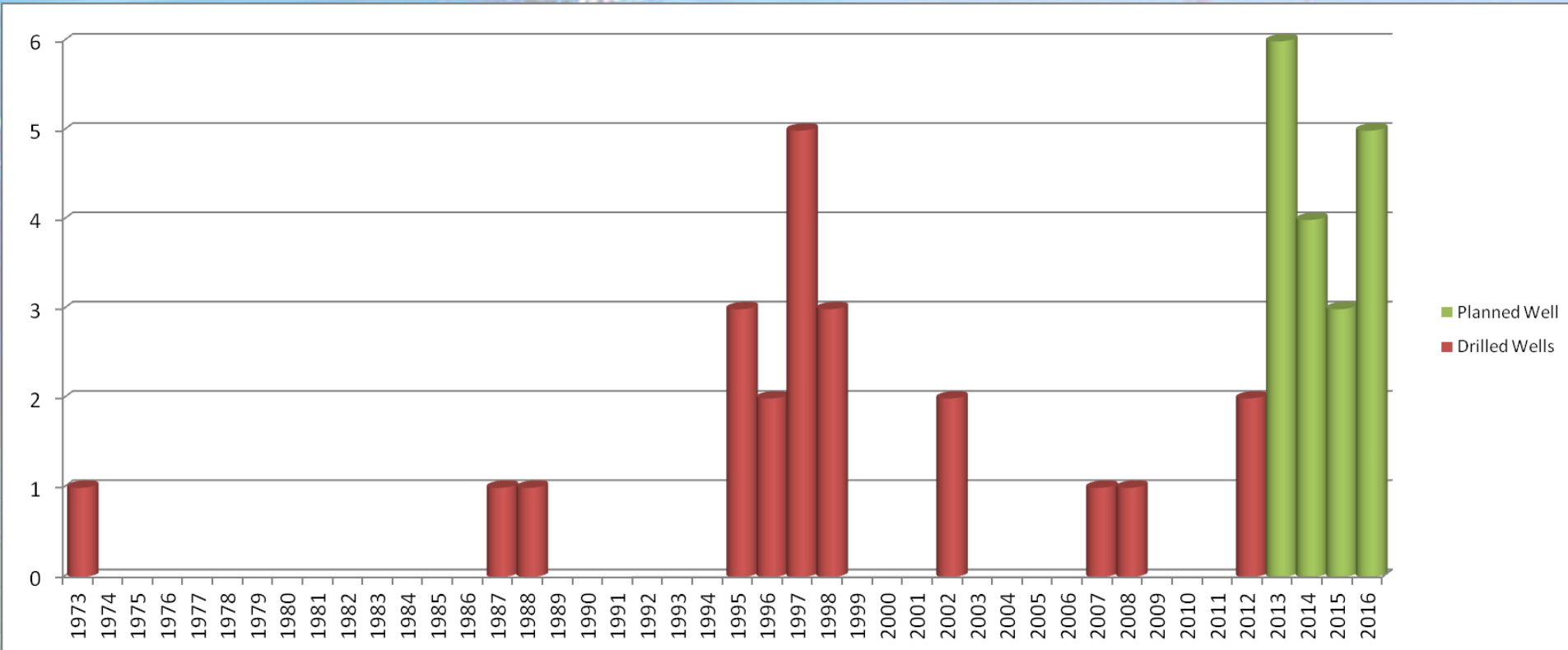


The increase in the 3D seismic acquisition is opening new possibilities to identify structural and stratigraphic traps with more certainty , reducing the exploratory risk for the drilling phase.



Update on Exploration activities

Exploratory data collection through time



Aggressive drilling campaign from 2012, after the successful 3D seismic interpretation and new major entries.



Main players and entry of majors

Petrobras

New operator of Block 2714A.
First well Kabeljou-1
completed 2 weeks ago.
Set up offices in Namibia.
Chariot has 25 % equity in the
block

Chariot Oil and Gas

Drilled Tapir south well in April
– May 2012 in Block 1811.
Well dry
Conducting end of well analysis.
Planning to drill more wells.

Arcadia/Repsol

Repsol farm-in submitted for
Ministerial approval.

Planning to drill more than
1/2 exploration well(s) from
2013/14.

BP

Acquired 45 % in Block
2714A.
30% equity in Serica block

Exploring new opportunities
in Namibia.

HRT Oil & Gas

Acquired more than 9 000
km² of 3D.

Finalising farm in deal

Planning to drill four wells
from January 2013.



New entrants in Offshore Namibia

Serica

Pancontinental

ECO Atlantic

ORANTO Petroleum

SIGNET Petroleum

Maurel et Prom

New entrants in Onshore Namibia

Hydrocarb

Preview Energy

Frontier Resources

ECO Atlantic

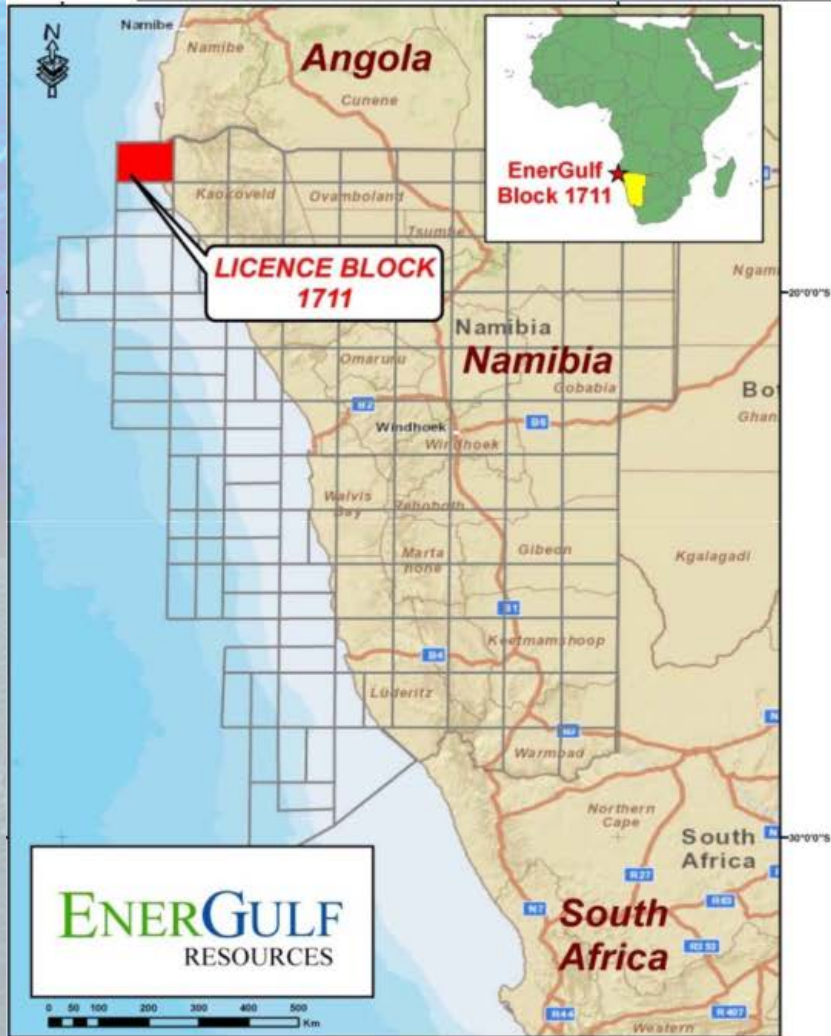
Instinct Energy

OS Petro



Farm-in opportunities

Energulf (interim operator) of Block 1711 northern Namibia



- Northernmost offshore Block in Namibia
- EnerGulf – Interim Operator
 - 15+% working interest
- 2.2 million acre block
- Three independent plays, multiple prospects
 - 15 prospects (turbidite, syn-rift and basement)
- Mean resource estimate:
 - 3.166 billion BO recoverable¹



Farm-in opportunities

Energulf (interim operator) of Block 1711 northern Namibia

- **Original Co-Venturers:**

- Sintez (now NAKOR) - 70%
- PetroSA – 10%
- EnerGulf – 10%
- Namcor – 7% (carried)
- Kunene Energy - 3% (carried) (BEE)

- **Current Co-Venturers:**

- New Operator- 51 to 55% available
- Sintez (now NAKOR) - 10% carry (through 2012 and one well).
- PetroSA – 10%
- EnerGulf – 15 to 19%
- Namcor – 7% (carried)
- HRT – 2.7%
- Kunene Energy – 0.3% (carried) (BEE)



Main exploration activities conducted recently

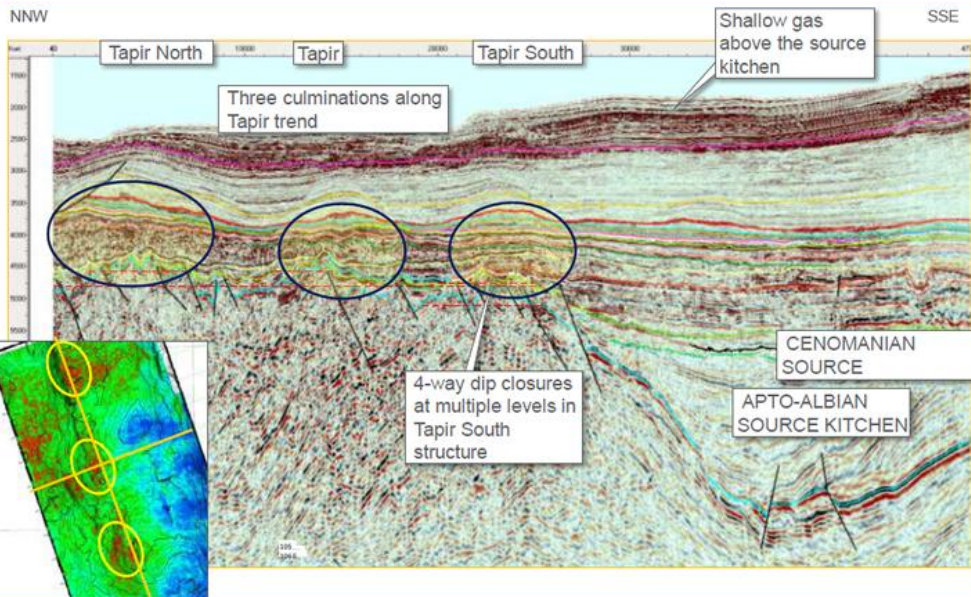


Tapir South well drilled by Chariot

Good reservoir: two zones in excess of 30m with average porosities of 24% and good permeabilities; carbonate intervals were also penetrated with porosities up to 18% over a net interval of 28m.

This information will be used to calibrate the existing data set and a resource update of the remaining prospectivity in the block will be provided once this evaluation has been completed.

Northern Area (1811 A & B)
Tapir Ridge - Strike line along prospect ridge



Main exploration activities conducted recently

3D seismic campaign by Serica Energy, BP and NAMCOR

Seismic Operations

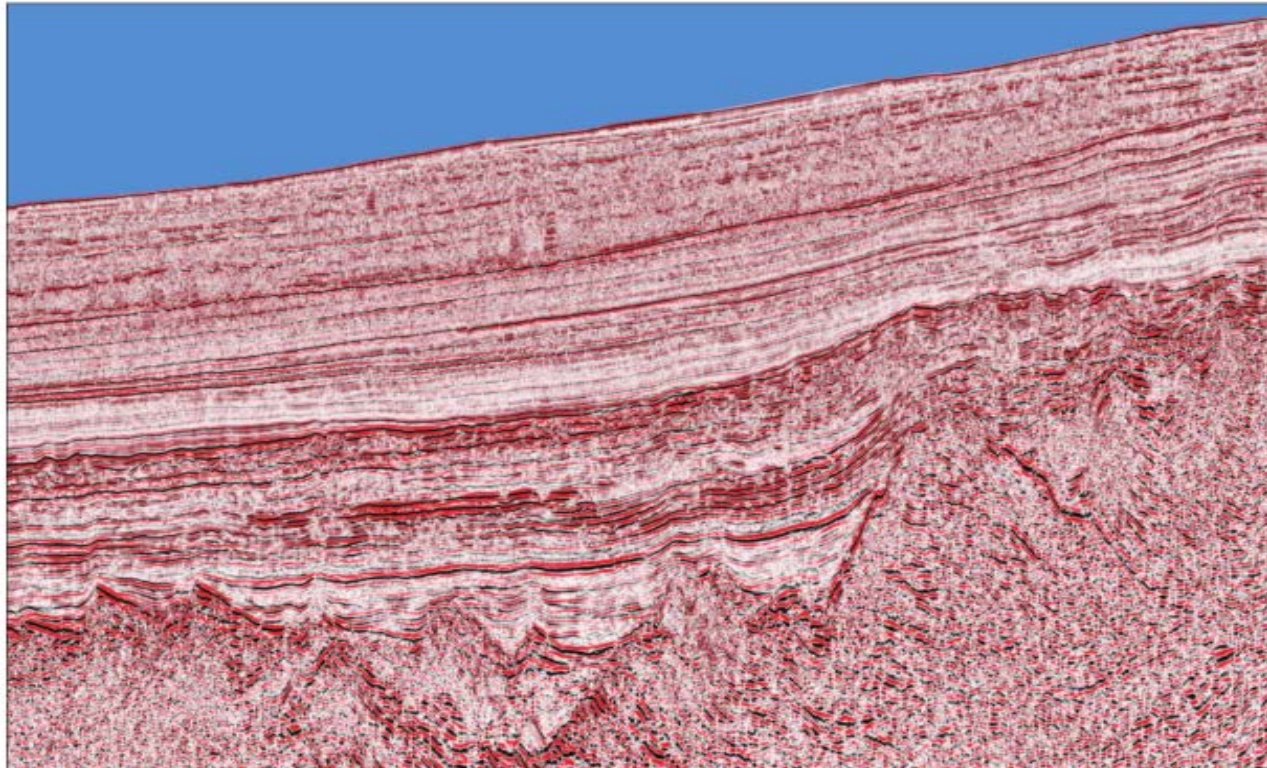


Main exploration activities conducted recently

Spec 2D seismic survey: TGS NOPEC in NamibeBasin

NAMIBIA

Namibe Basin, WAL 11 2D Survey

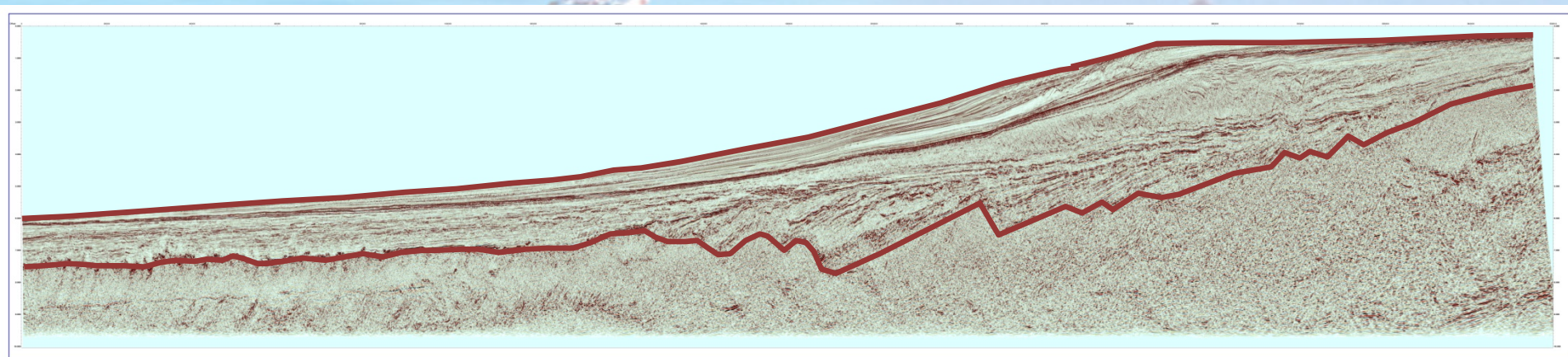


High quality 2D seismic data, showing well developed synrift section. This fact might open new opportunities for exploration.

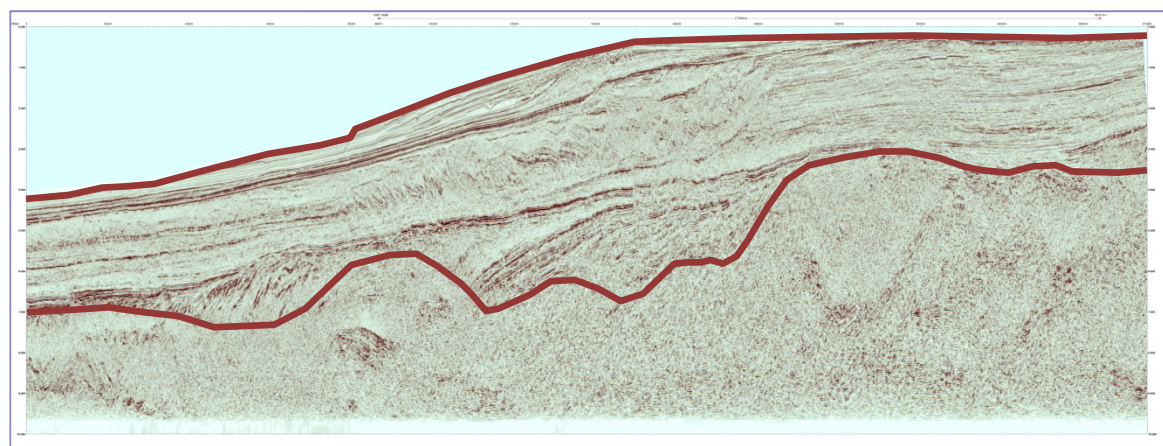


Main exploration activities conducted recently

Spec 2D seismic surveys: Spectrum in Luderitz and Walvis Basins



High quality 2D seismic data, showing great sediment thickness specially in deep waters. This fact might open new opportunities for exploration.



Main exploration activities conducted recently

Kabeljou 1 well, targeting the Nimrod Prospect

Ocean Rig Poseidon



Namibia – Block 2714A

14.06.2012, Windhoek



Conclusions

- With the recent unprecedented exploration campaign and high quality data collection, the petroleum geology knowledge is improving, making the discovery of new oil and gas fields in Namibia possible in the near future.
- Despite two unsuccessful wells in 2012, Namibia has established a critical mass of operators and created momentum for future exploration, esp. drilling of wells.



Thank you very much

