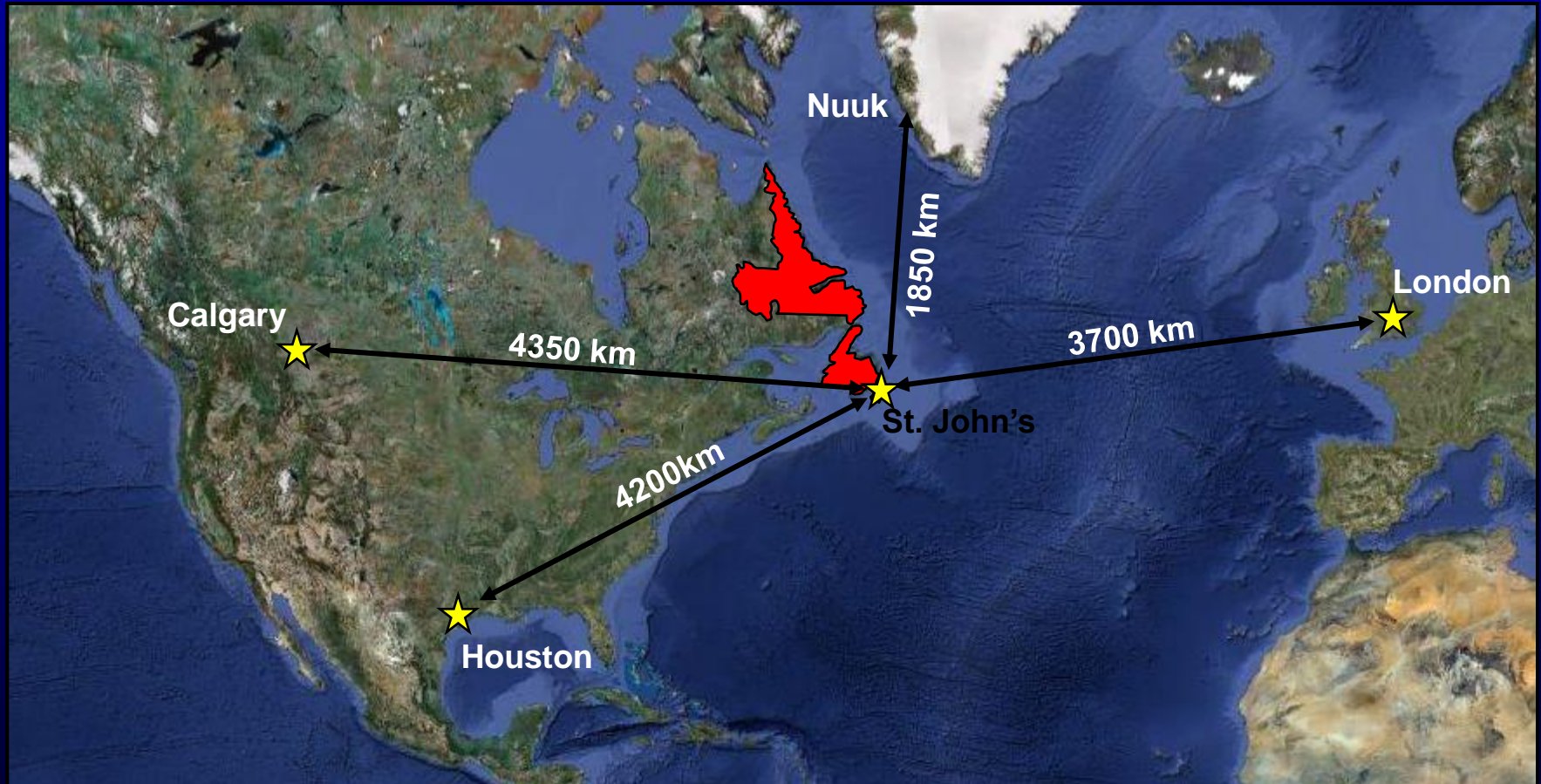




Newfoundland and Labrador: Resource Opportunities Available

**David Middleton
Director of Petroleum Geoscience
Department of Natural Resources
Government of Newfoundland and Labrador, Canada**

Location



Location



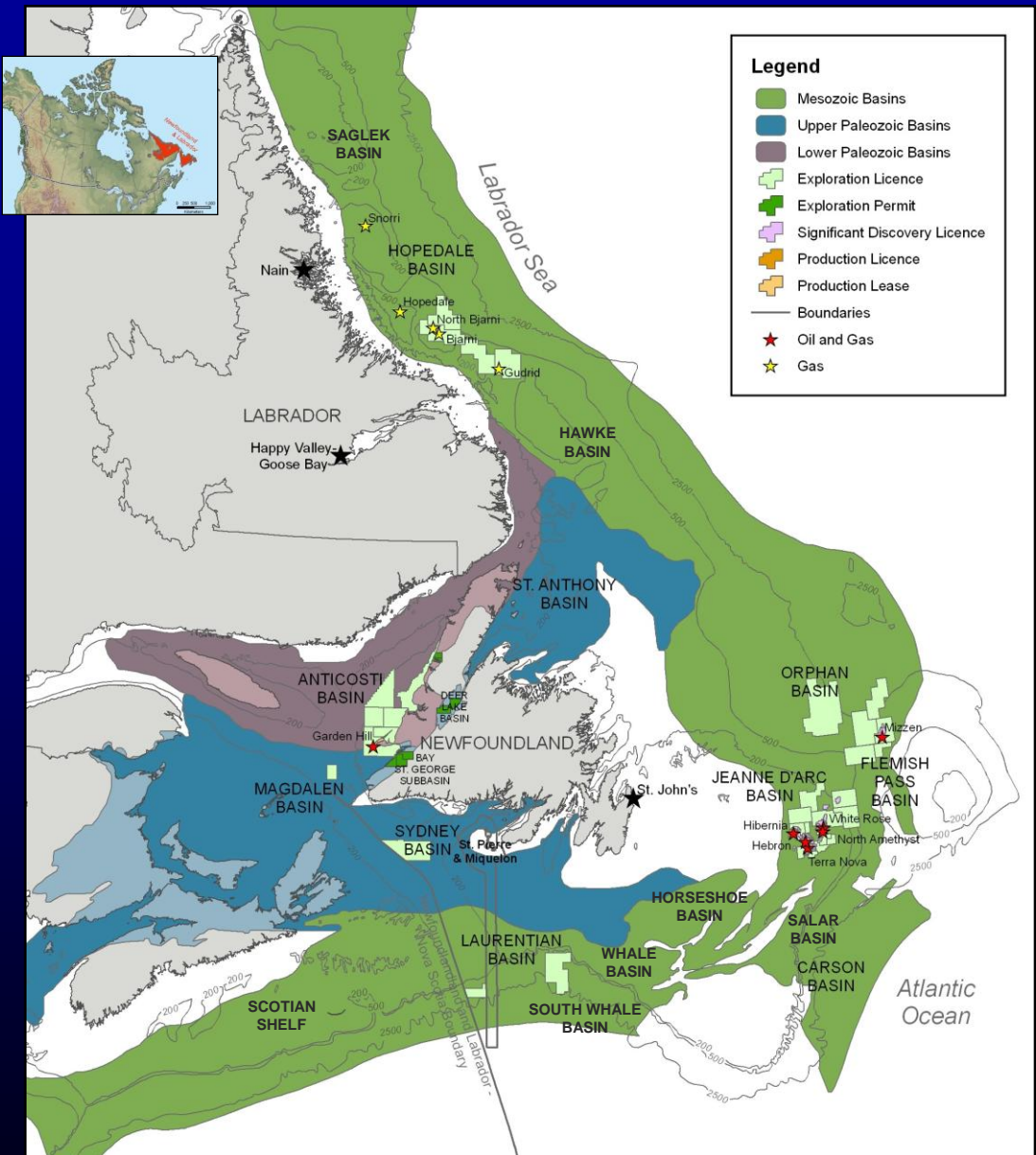
Overview



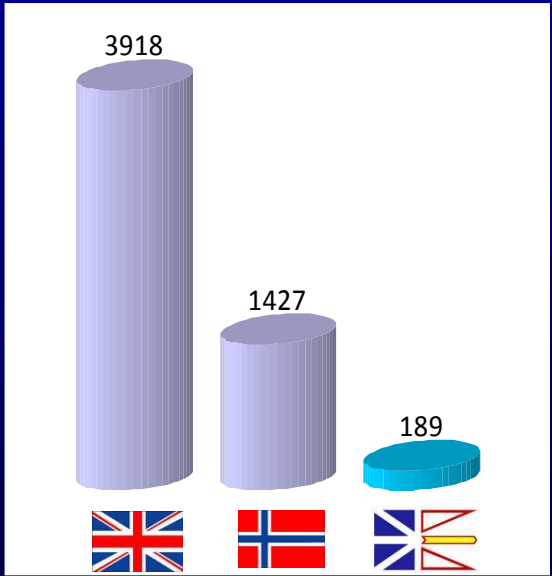
- Total Land Area in excess of 800,000km² (200 Million acres). Average Block size 100x the size of US Gulf of Mexico Blocks.
- Numerous sedimentary basins, very underexplored.
- >3 Billion barrels oil, >11 Tcf gas & >500MM barrels NGLs discovered so far. Undiscovered estimated at 6 Bbbl oil and 60 Tcf. 1.3 Billion barrels produced to date.
- NL accounts for >10% of Canada's total oil production and approx 1/3 of Canada's conventional light crude output.
- One producing basin so far, Jeanne d'Arc, averaging 275,000 bopd production. Significant Discovery now in Flemish Pass.

< 10% currently held under licence

Underexplored Proven Petroleum Region



Exploration and Appraisal Wells

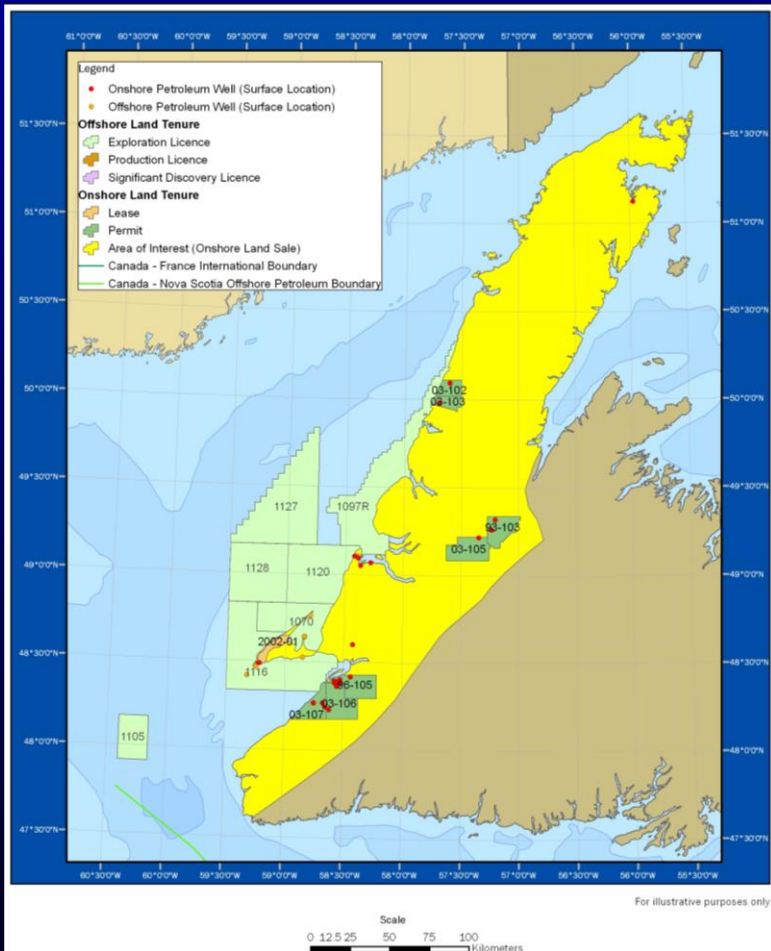


1 well per 139 km² 1 well per 461 km² 1 well per 4,203 km²

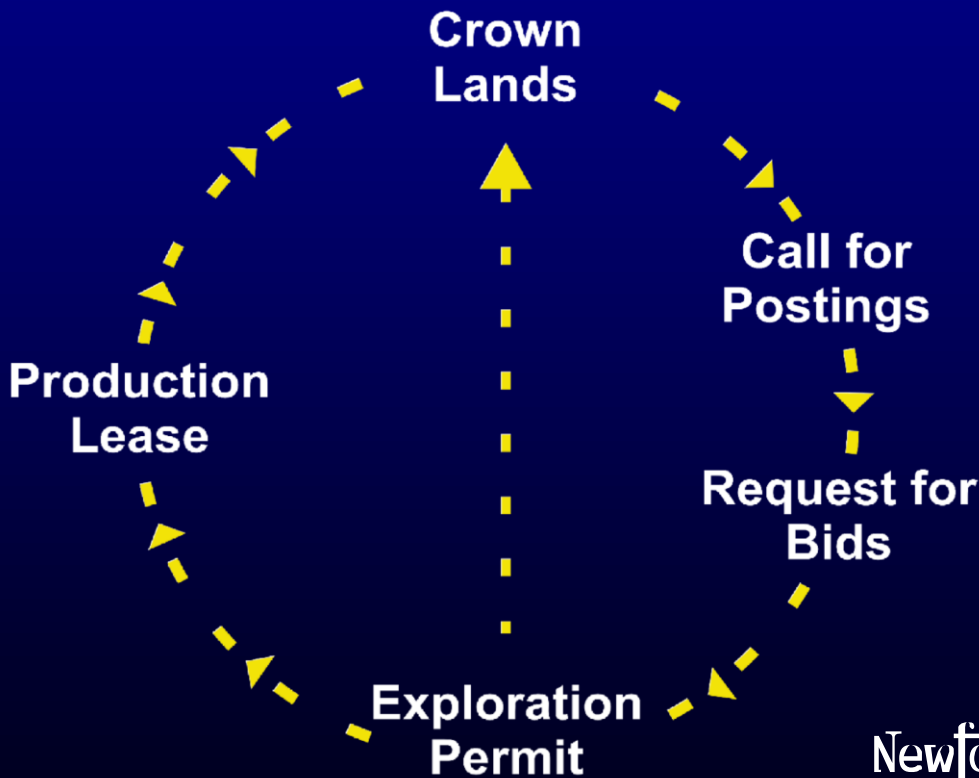
Source: WoodMackenzie 2010, CNLOPB 2009

Call for Bids: Offshore and Onshore

- 2012 Offshore Call for Bids expected imminently. Areas for licensing yet to be made public.



Onshore Land Rights – Issuance Process



Drilling Activity 2012 – Onshore

Shoal Point Energy et al.

Green Point Formation, Cow Head Group Shale Oil Play at Shoal Point, Port au Port Peninsula

- K – 39
- 2K – 39
- 2K – 39Z
- 3K - 39

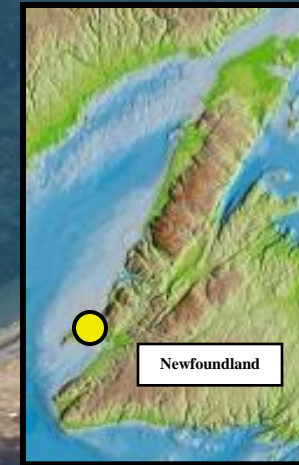


Photo Credit – Canadian Imperial Venture Corp. (CIVC)

Drilling Activity 2012 – Onshore

Shoal Point Energy et al.



Shoal Point

Photo Credit – Canadian Imperial Venture Corp. (CIVC)

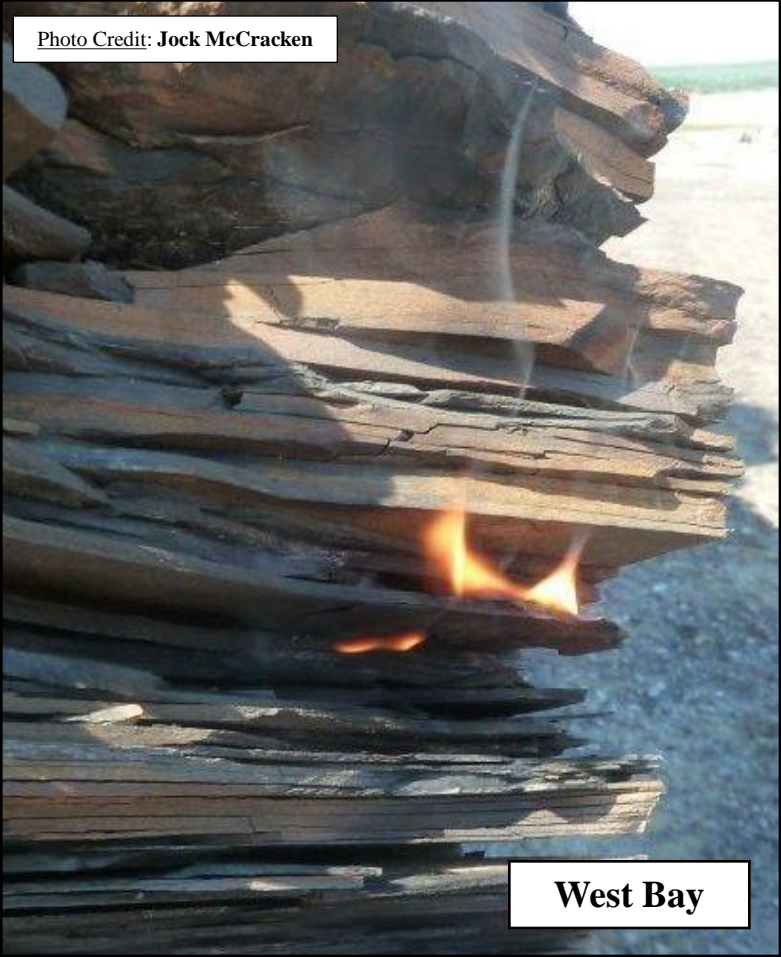
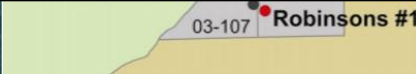
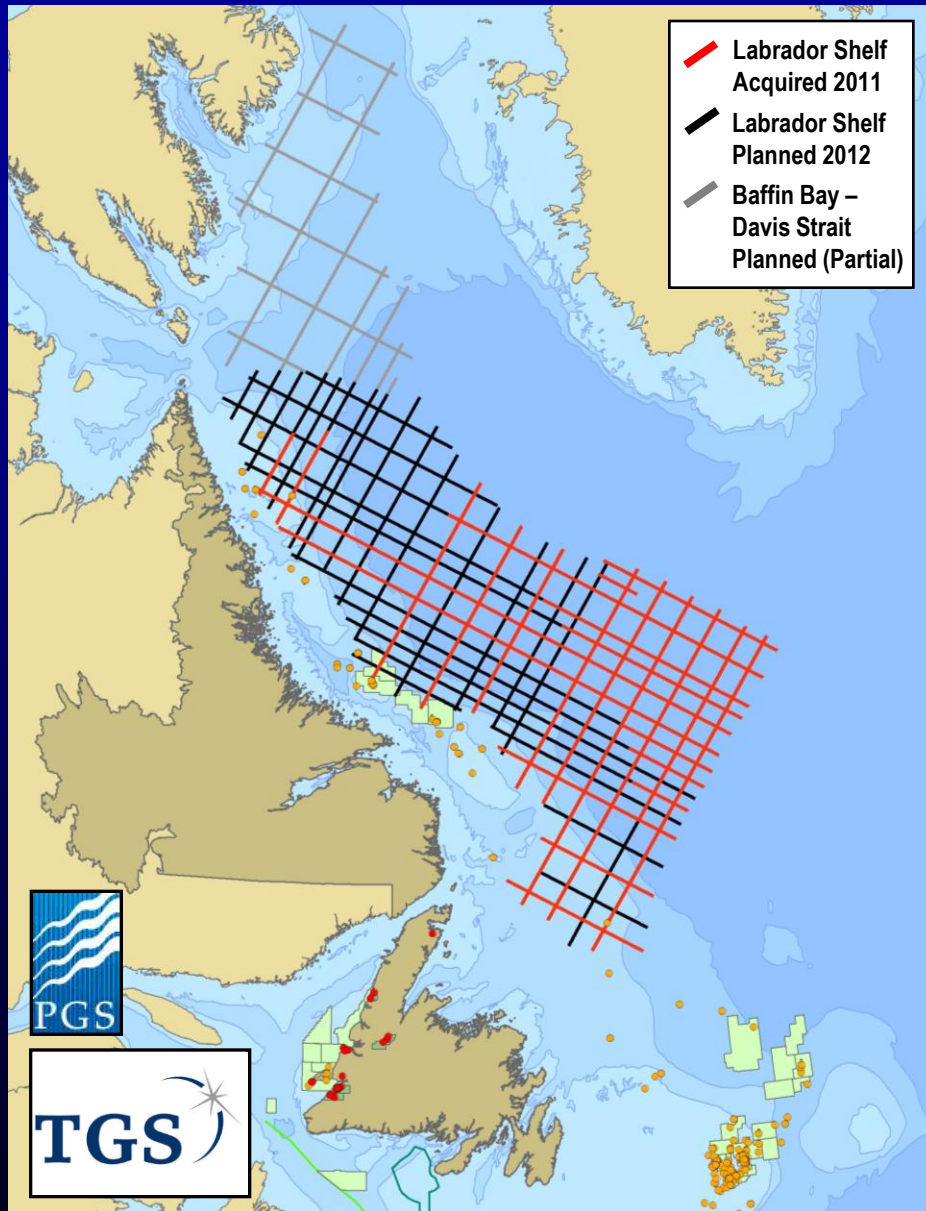


Photo Credit: Jock McCracken

West Bay



MKI Seismic: Labrador 2D Program



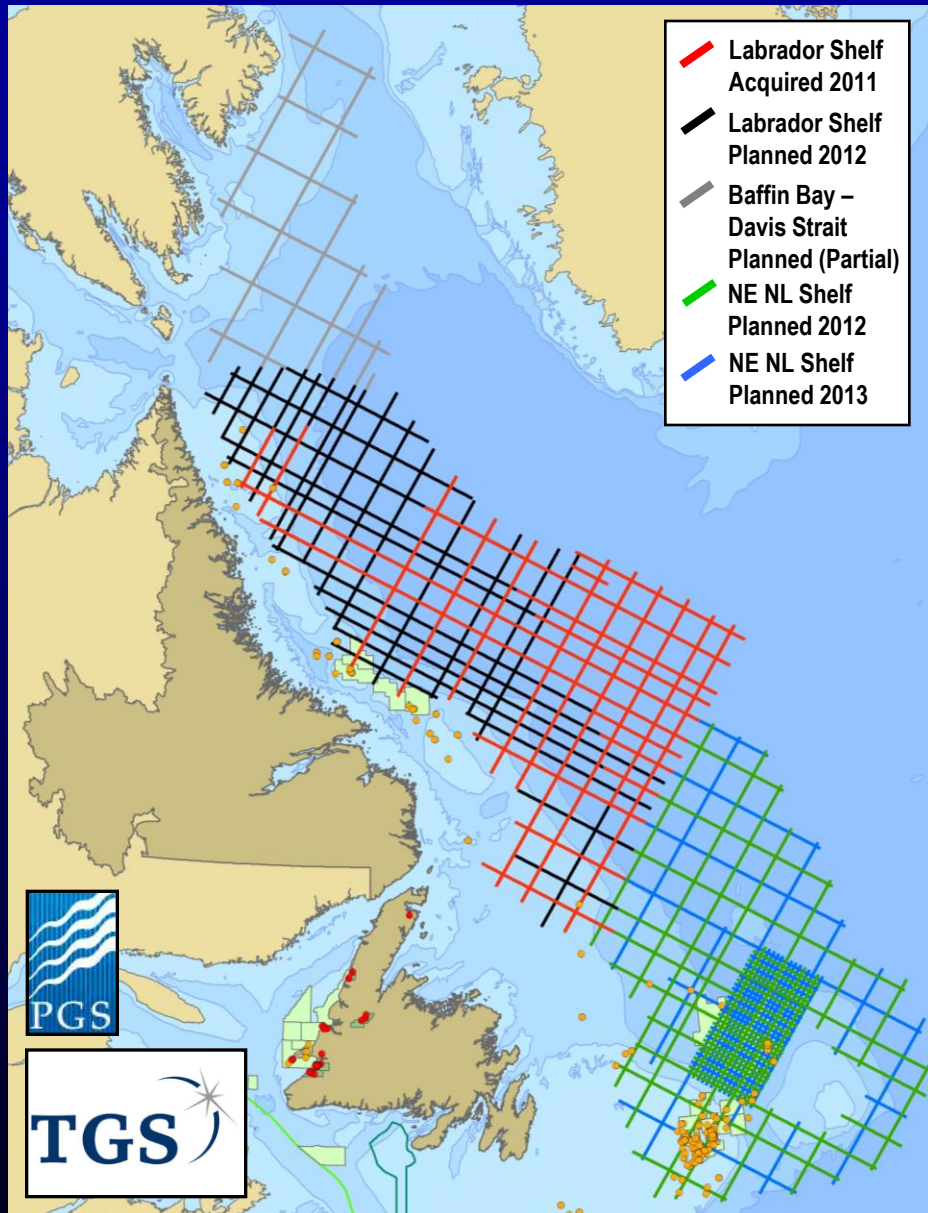
- State-of-the-art 2D Seismic Program utilizing modern Geostreamer™ Technology.

- In excess of 20,000 line-km of seismic data to be acquired offshore N L. >10,500km acquired in 2011 season of which c.5000km in N L waters. 2012 season planned for an further 11,500km.

- Baffin Bay – Davis Strait seismic planned for minimum 6,000km new seismic, expected to grow as interest in the area grows.

Seismic Grid courtesy of TGS-NOPEC and PGS
Seismic grid to be acquired subject to change

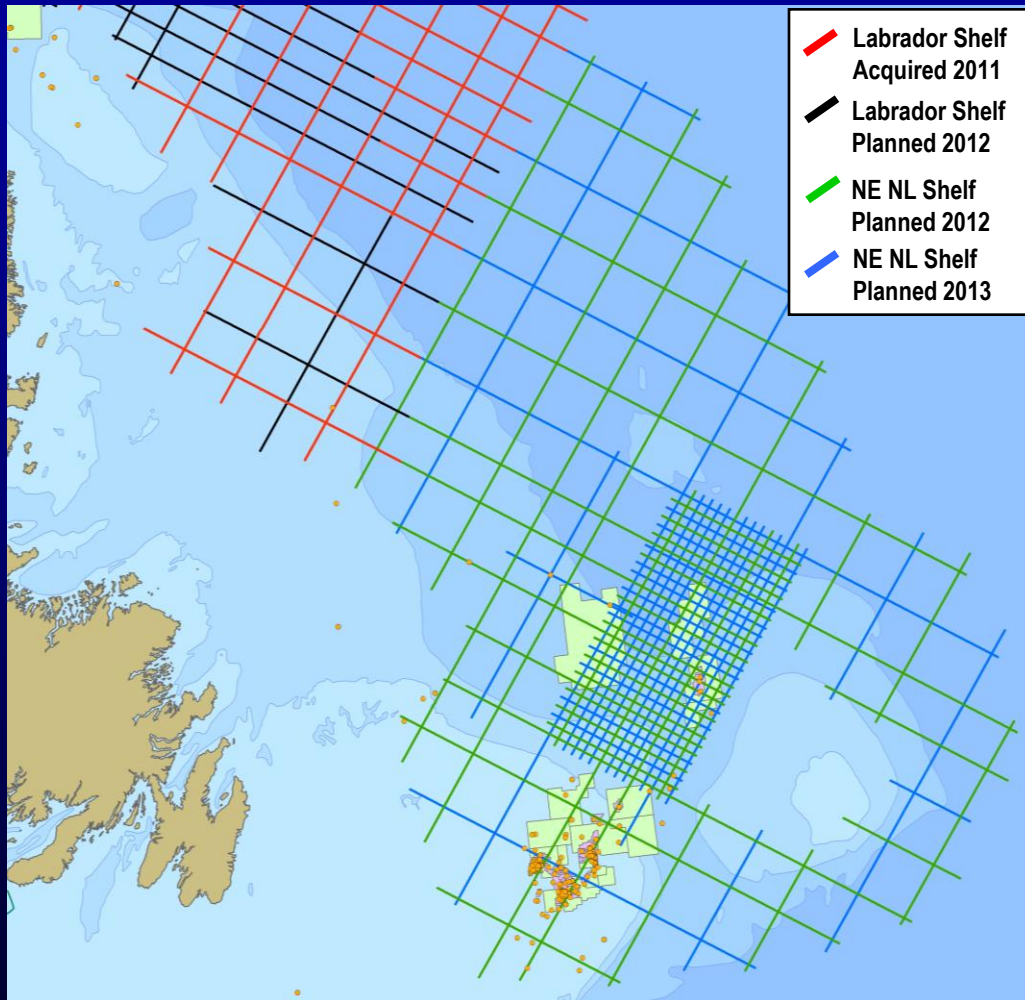
MKI Seismic: Planned NE NL Shelf 2D Program



- State-of-the-art 2D Seismic Program utilizing modern Geostreamer™ Technology.
- In excess of 20,000 line-km of seismic data planned to be acquired in Northern Jeanne d’Arc, Flemish Pass and Orphan Basins.
- Currently in planning stage – subject to change.

Seismic Grid courtesy of TGS-NOPEC and PGS
Seismic grid to be acquired subject to change

MKI Seismic: Planned NE NL Shelf 2D Program



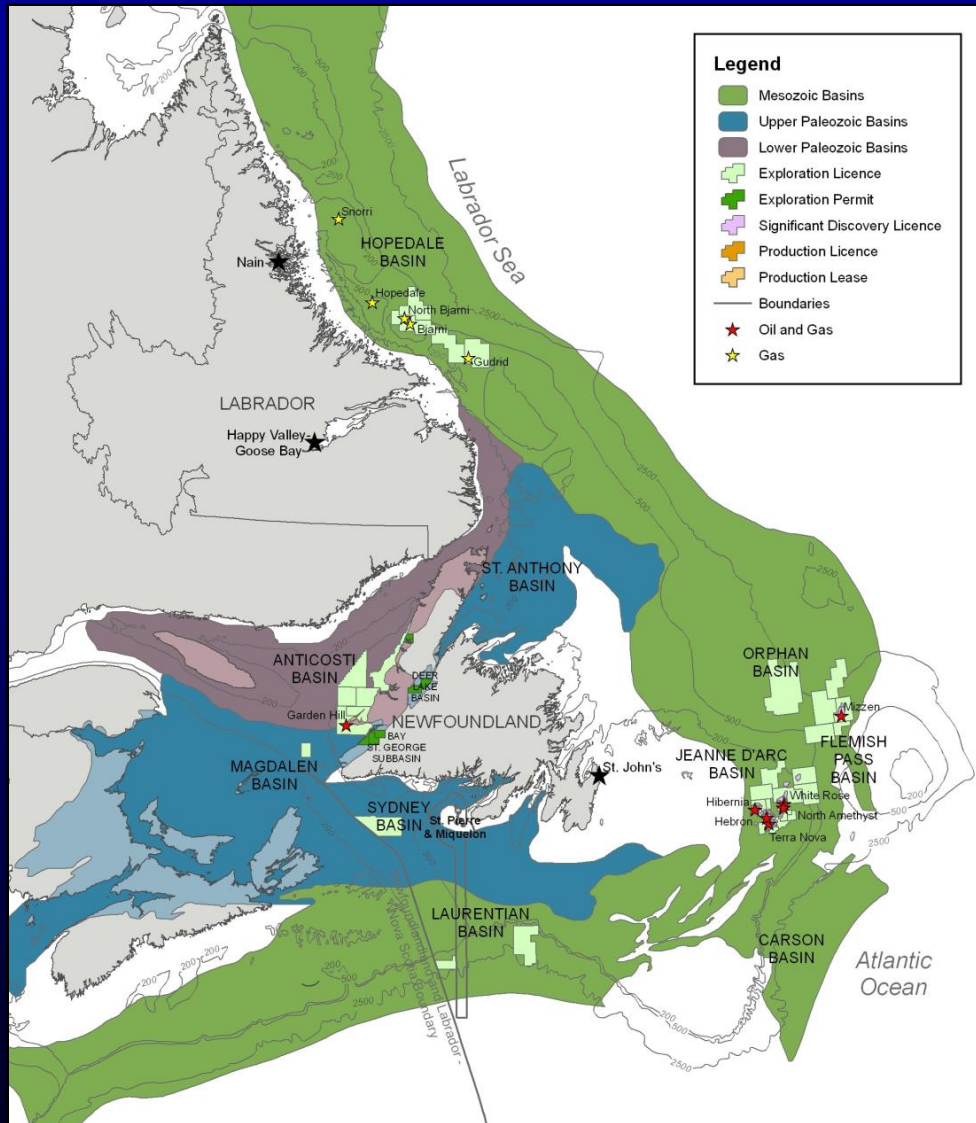
- State-of-the-art 2D Seismic Program utilizing modern Geostreamer™ Technology.
- In excess of 20,000 line-km of seismic data planned to be acquired in Northern Jeanne d'Arc, Flemish Pass and Orphan Basins.
- Currently in planning stage – subject to change.



Seismic Grid courtesy of TGS-NOPEC and PGS
Seismic grid to be acquired subject to change

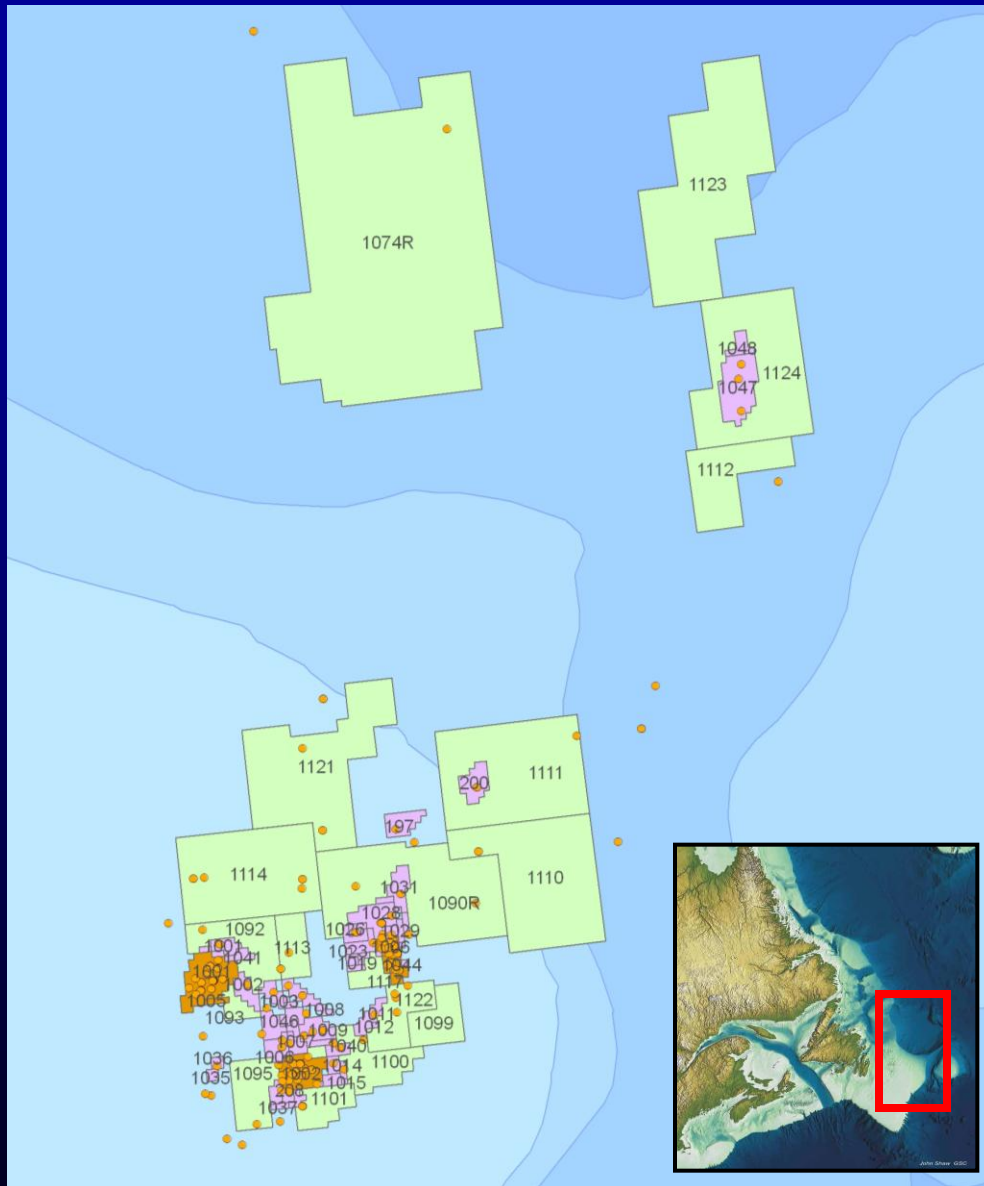


3D Seismic Planned Activity 2012



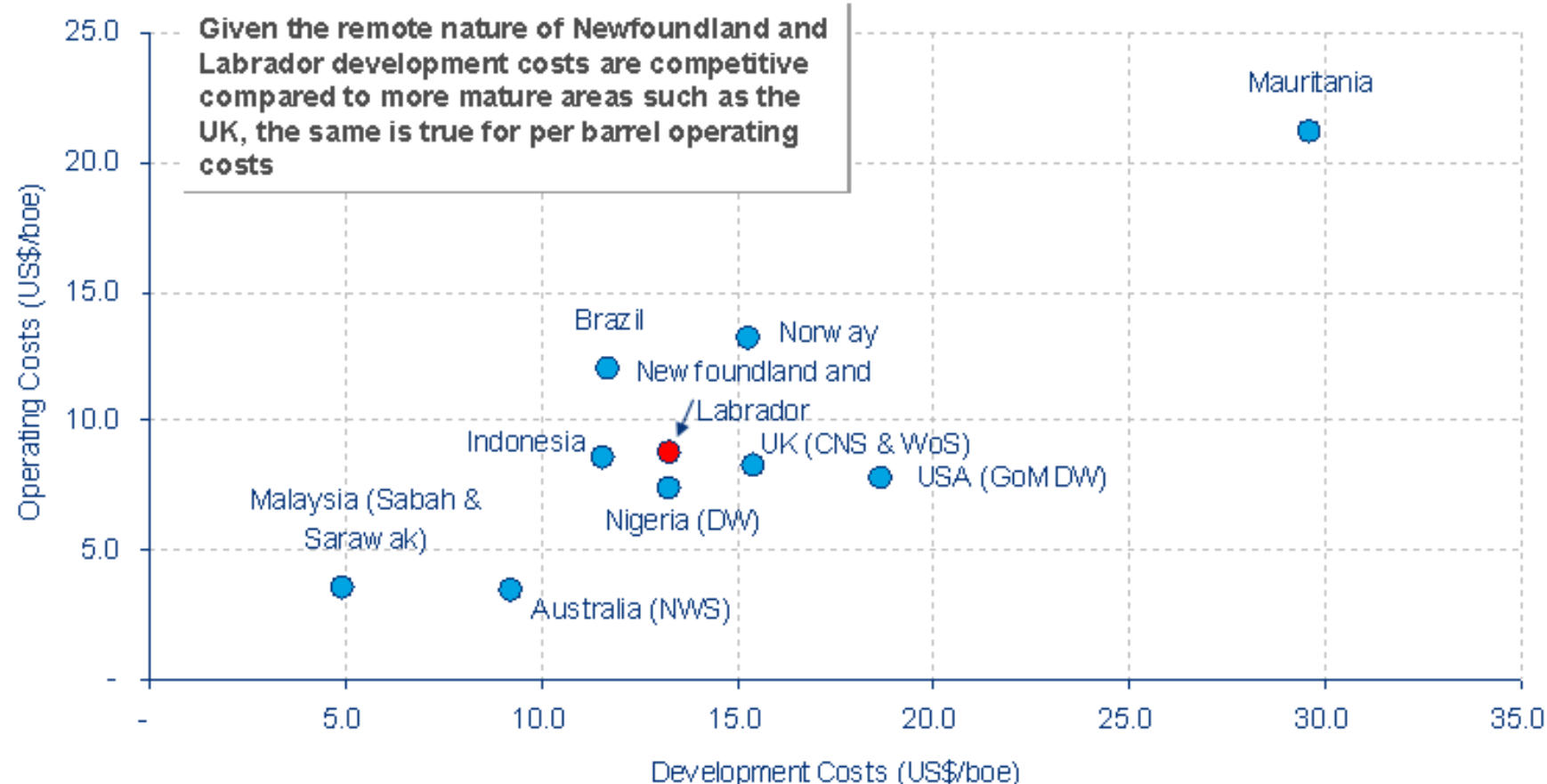
- Western Geco submitted EA to CNLOPB for 3D Seismic Program in Jeanne d'Arc Basin.
- Ptarmigan planning 3D survey offshore West Coast Newfoundland – to be confirmed.

Drilling Activity 2012 – Offshore



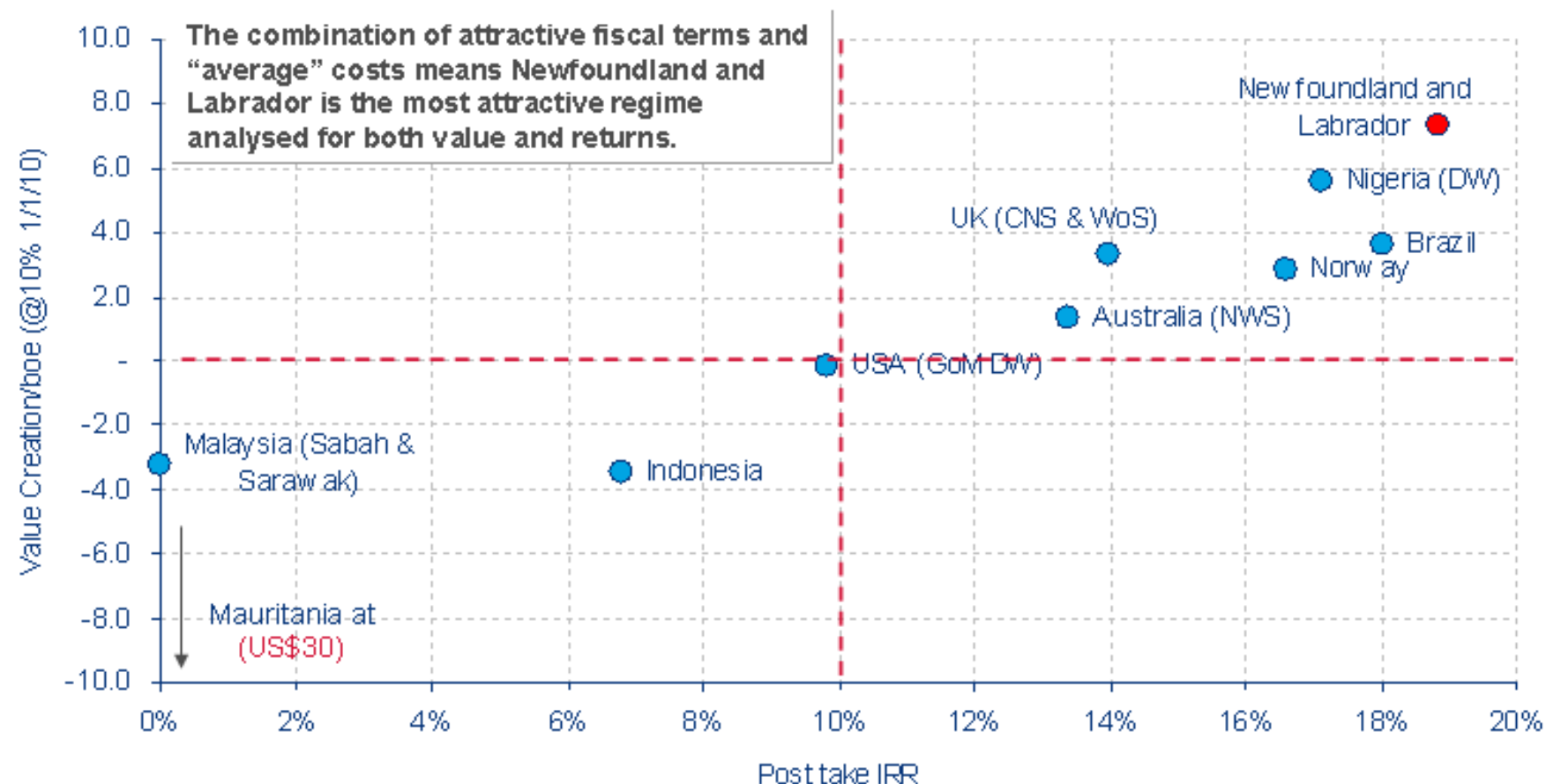
- Drilling activity increasing – expecting as many as 5 offshore rigs in NL in 2012
- Statoil announced plans to drill 2-4 wells offshore NL, starting late 2012.
- Chevron announced plans to drill a third well in the Orphan Basin – Exxon & Shell left EL1074R consortium, while Statoil and Repsol have joined.

Field Comparison – costs per barrel



Source: Wood Mackenzie Exploration Service. Average development and operating costs for commercial fields discovered between 2000 and 2009 as classified by Wood Mackenzie

Full Cycle Economics



Source: Wood Mackenzie Exploration Service. For commercial discoveries between 2000 and 2009 as classified by Wood Mackenzie

Summary

- >3 Billion bbls Oil and >11 Tcf Gas discovered to date.
- Daily production around 275,000 bopd.
- 1.3 Billion bbls light crude Oil produced since first oil in 1997.
- Vast area, very lightly explored to date. Numerous prospective basins.
- Increasing exploration activity levels in offshore area, open to new entrants. New discovery in Flemish Pass Basin. First bid round since 2002 in onshore area and new offshore bid round to expected to be announced imminently.
- Favourable fiscal regime, geopolitically stable.
- Proximity to North American and European markets.



**Come visit us for more information
at our booth #130, directly behind
the coffee station in the IP**





Newfoundland
Labrador
CANADA