



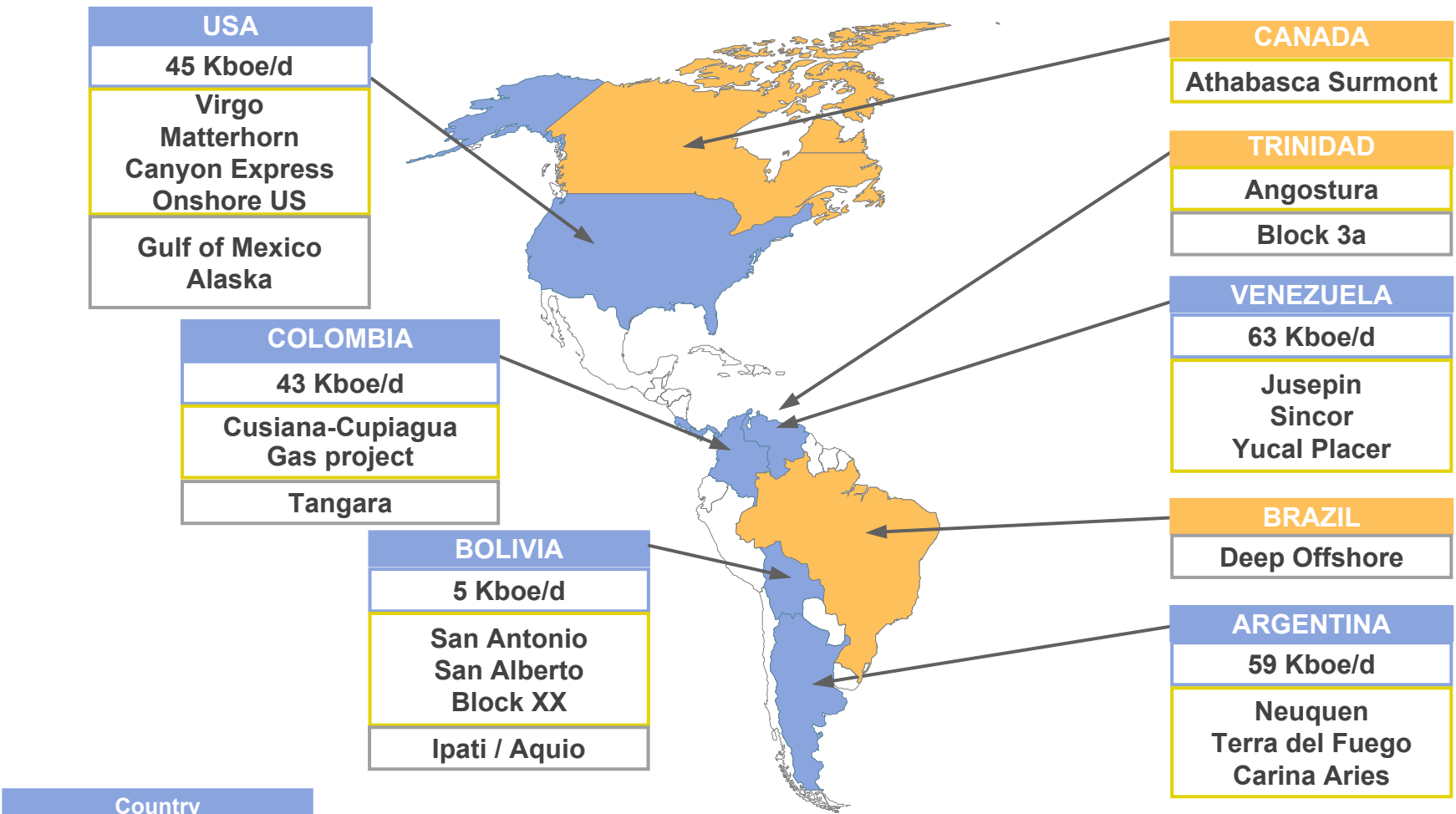
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Total in Americas

Venezuela Field Trip - September 2003

www.total.com

Americas: well established in South America, growing in North America




Country
2002 SEC Production
Development / Production
Exploration

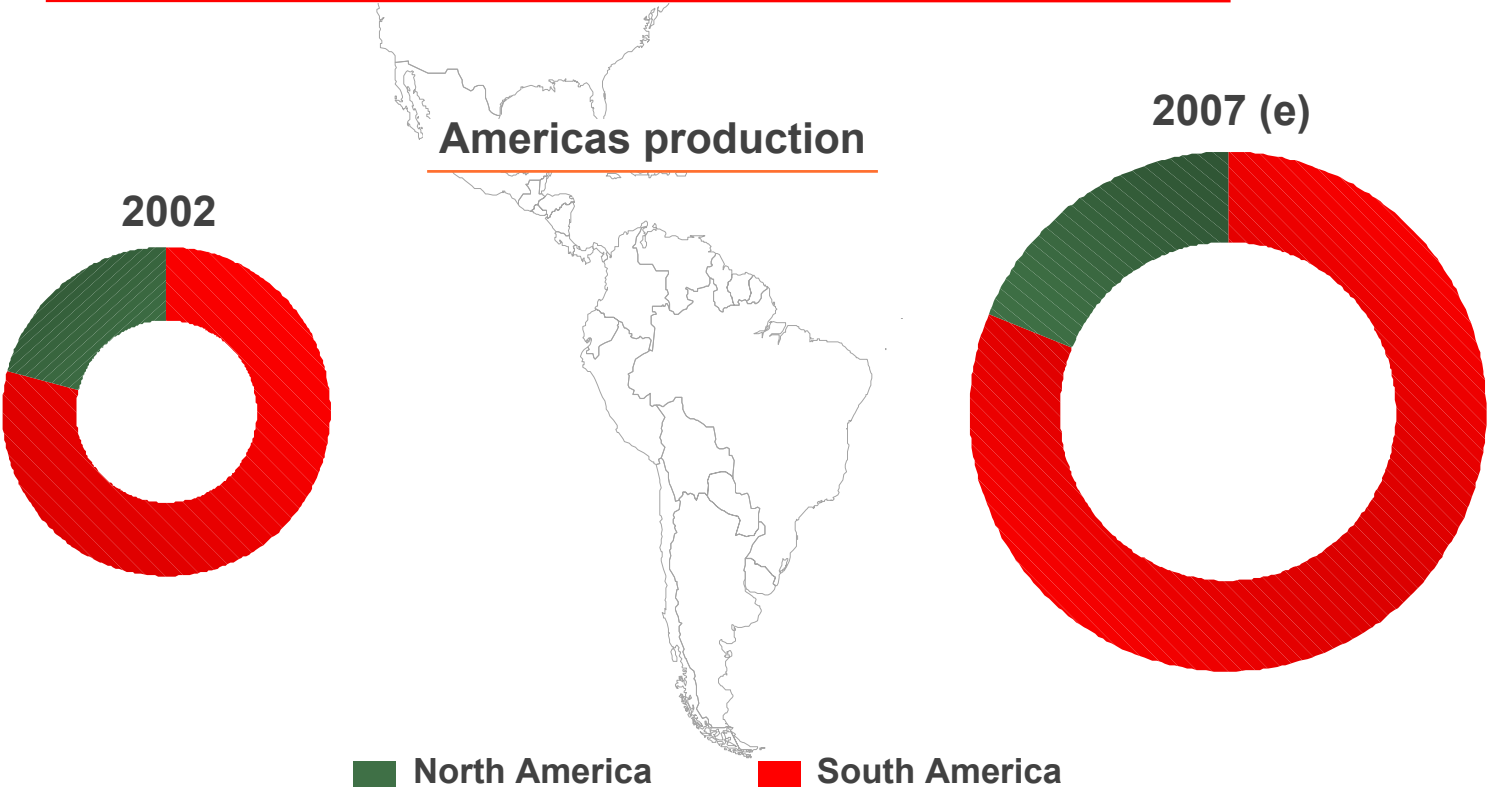
Countries with production
 Other E&P activities



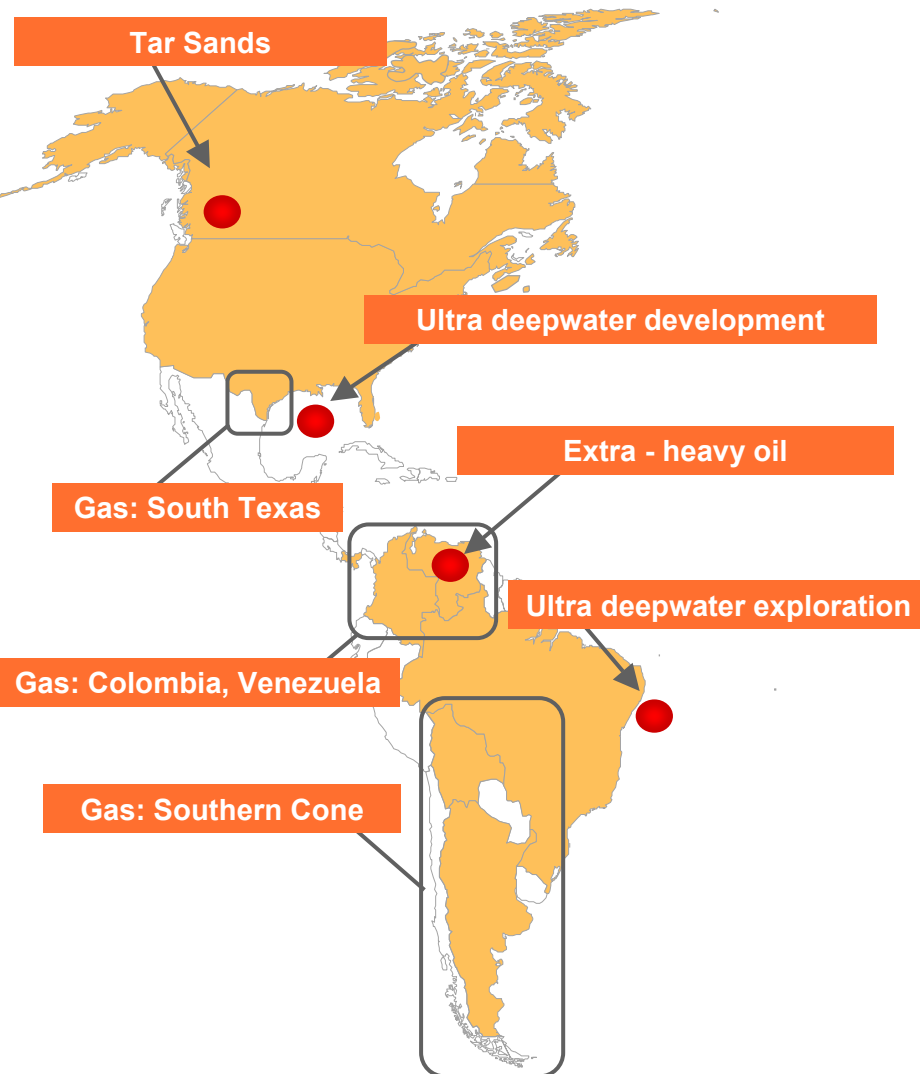
Americas: a growth area for Total



<i>Total in Americas</i>	2002	2007 (e)
SEC Production	9%	12%
1P Reserves (Group Share)	12%	14%



Focus of activity



- **Growing and optimizing our existing asset base**
(Argentina, Colombia, onshore Texas, Trinidad)
- **Deep offshore: valorizing our worldwide expertise**
(Deep and Ultra deep GoM, Brazil)
- **Heavy oil: mastering the technology / launch additional projects**
(Venezuela: Orinoco, Canada: Athabasca)
- **Gas: expanding production / increasing market share**
(Venezuela, Colombia, Southern Cone)



Growing and optimizing existing asset base: Example: the Neuquen basin

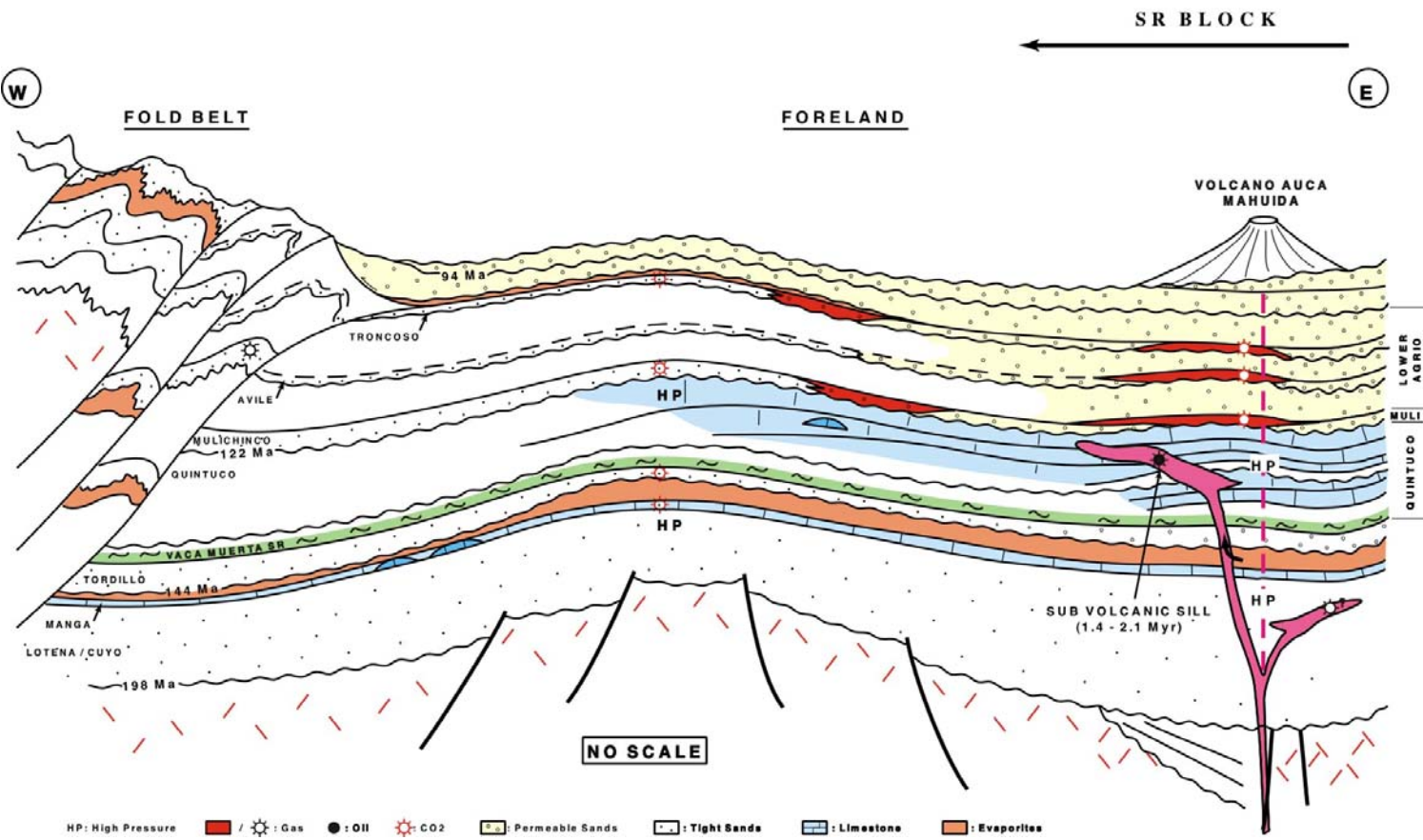


- Overcome short term crisis
- Increase/extend our reserves base
 - perform low risk exploration
 - negotiate win/win contractual extension with the authorities
- Capture short term market share opportunities (Chile)
- Look for/negotiate contractual upsides

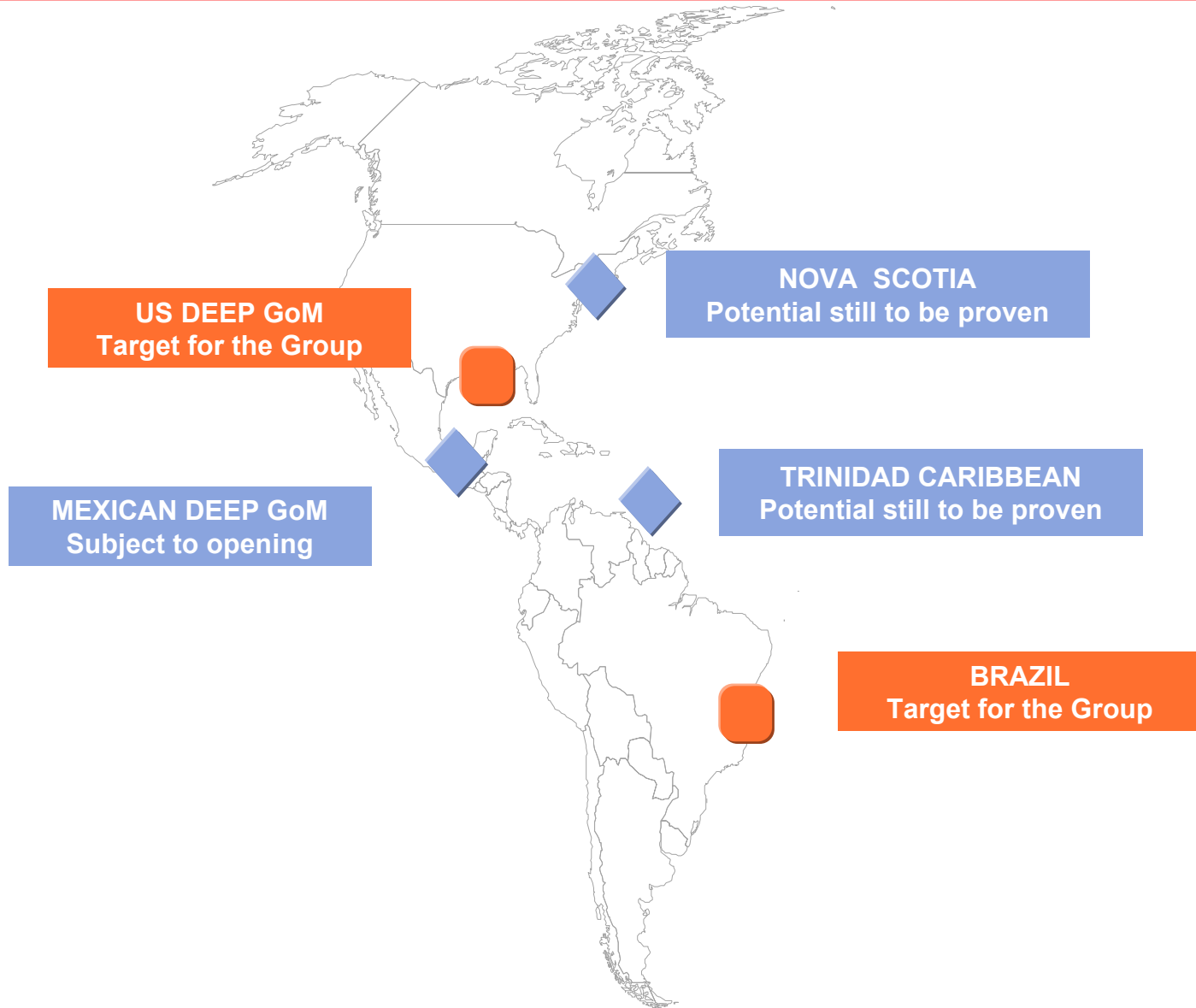
Neuquen basin

Maximizing development of reserves within concession areas

- TOTAL applies unique expertise to develop exotic reservoirs in volcanic sills
- Marginal production costs: 1.6 \$/boe

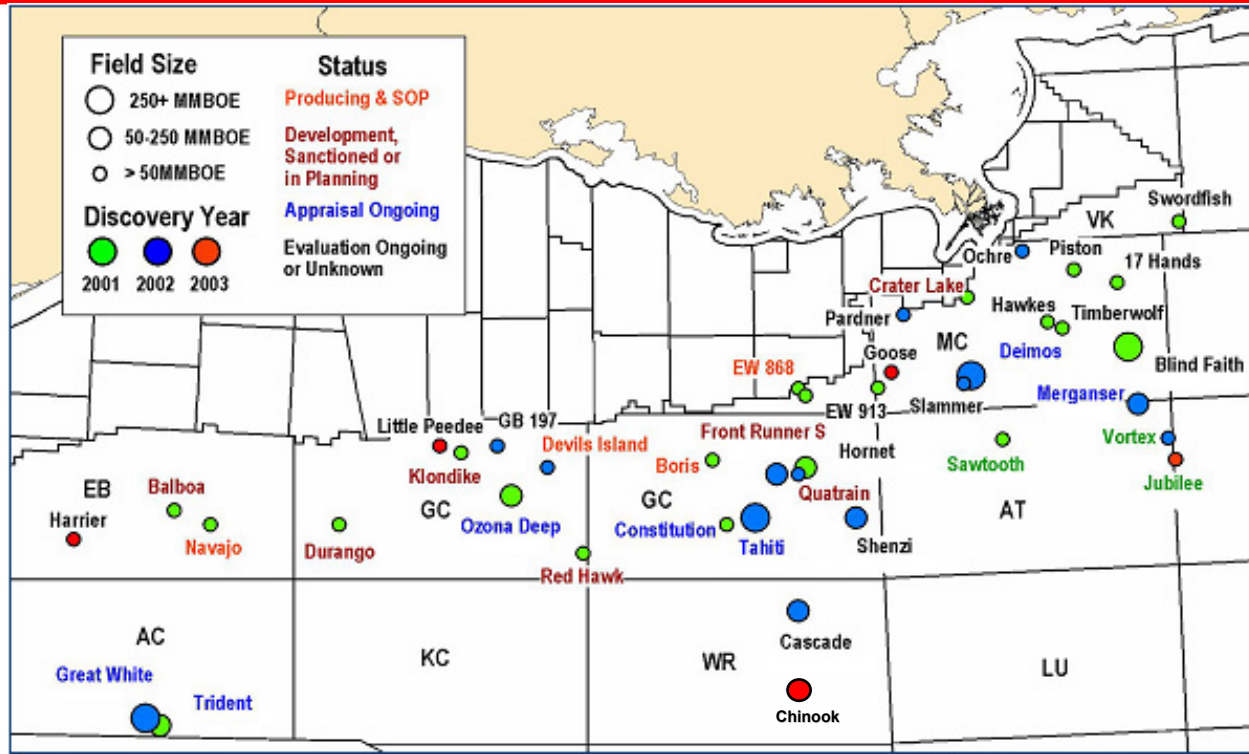


Deep Offshore: valorizing our worldwide expertise



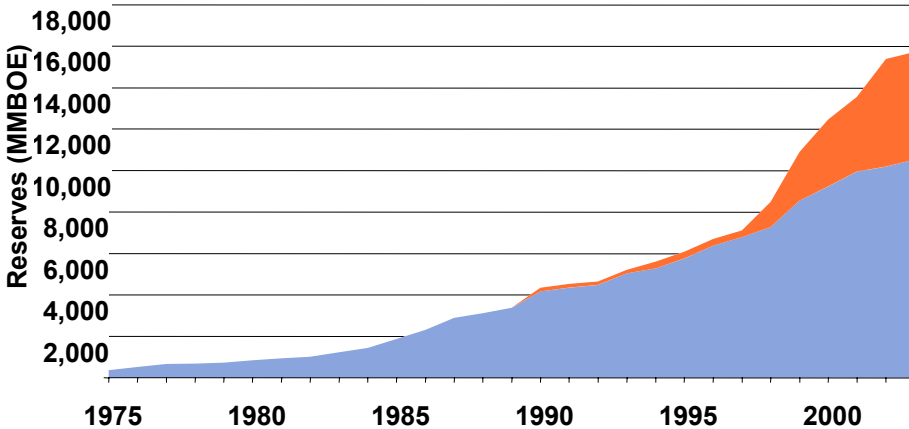
Deepwater discoveries on the Gulf of Mexico

Since June 2001



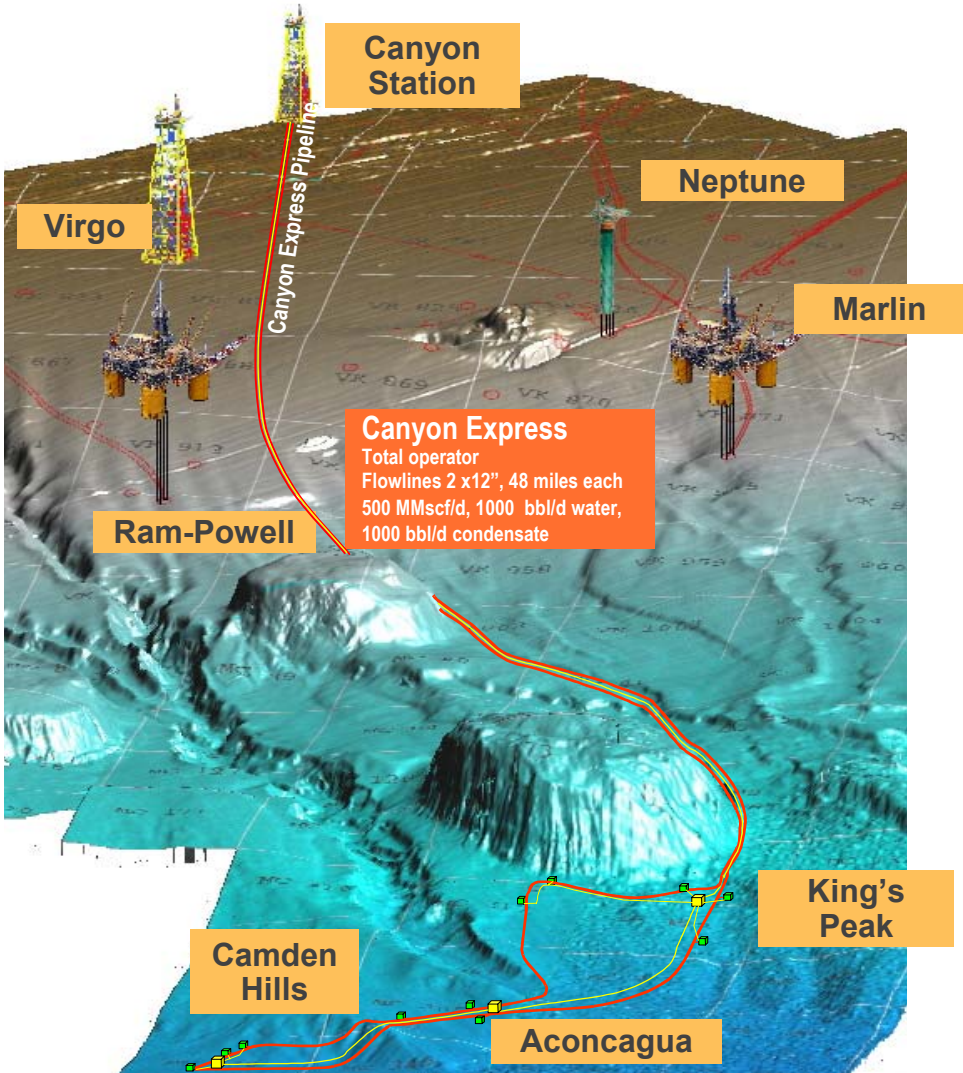
Proven Reserves (Deepwater)

- Conventional
- Non-Conventional



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Successful Canyon Express development



▶ Total interest

- Aconcagua: 50% operator
- Camden Hills: 16.7%
- Canyon Express: 25.8% operator

▶ Project

- Combined development of Aconcagua and Camden Hills with long distance tie-back to Canyon Station
- World record grassroots development in 2,000 m water depth



Deep GoM economic threshold

2,000/2,500 m. water depth / stand alone project

- 1,000 sq.m. non exclusive 3D seismic campaign including depth imaging processing ▶ 10 M\$
- Well costs ▶ 30 to 70 M\$+ according to depth

For 300 Mb oil project

- ▶ Capex: \simeq 1.5 B\$ to 2 B\$
- ▶ Technical costs: \simeq 8 \$/b to 9 \$/b
- ▶ Development IRR > 15%

For 100 Mboe gas project

- ▶ Capex: \simeq 0.5 B\$ to 0.7 B\$
- ▶ Technical costs: \simeq 8 \$/b to 9 \$/b
- ▶ Development IRR > 15%

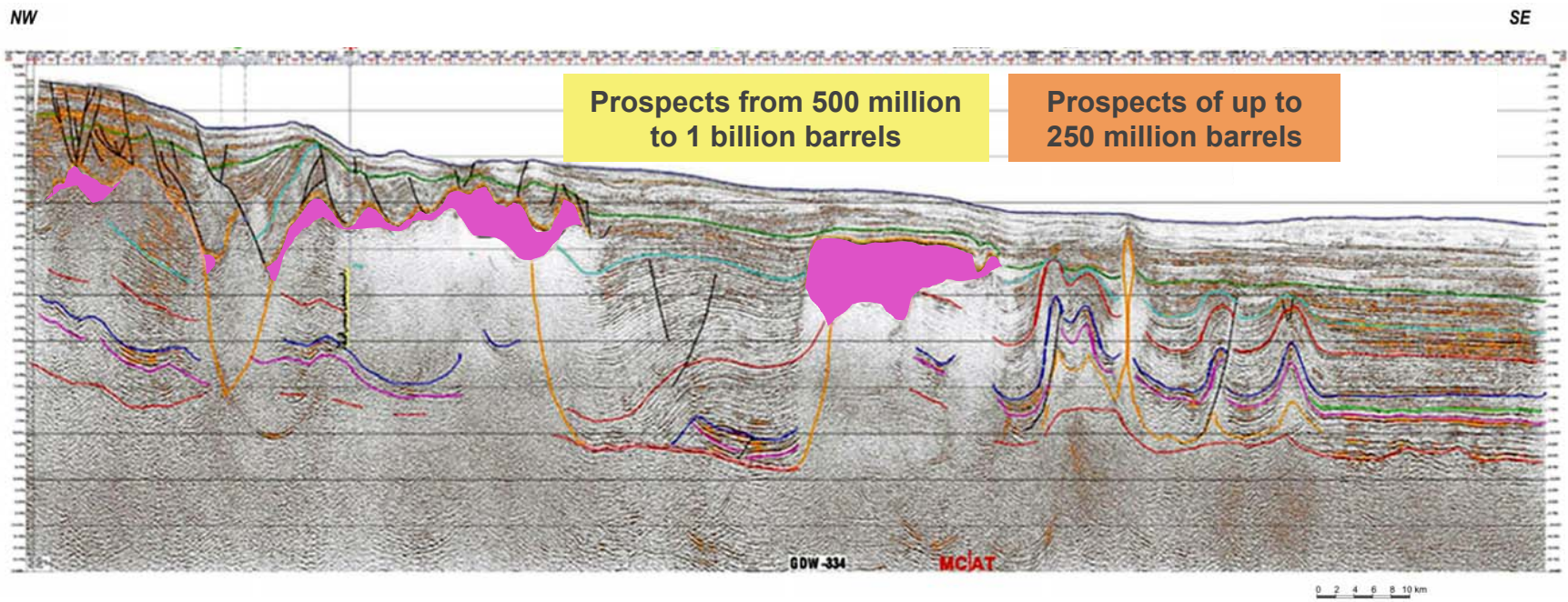


Geosciences Challenges in the Deep Offshore

Improving the Seismic Image for Exploration

Gulf of Mexico cross-section

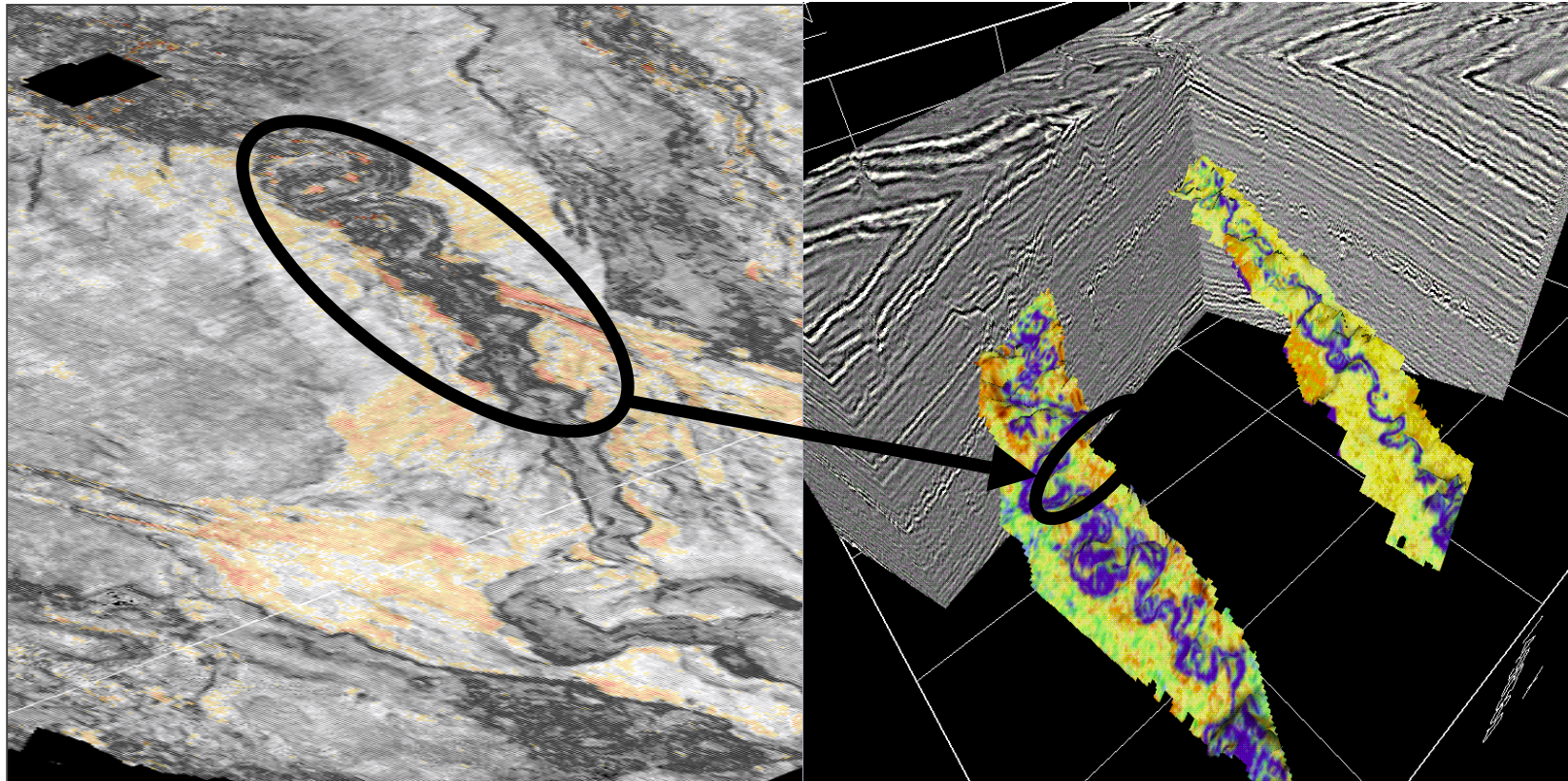
Extensive Area ? Translated Area Compressive Area Abyssal Plain



Geosciences Challenges in the Deep Offshore

Improving the Seismic Image for Exploration

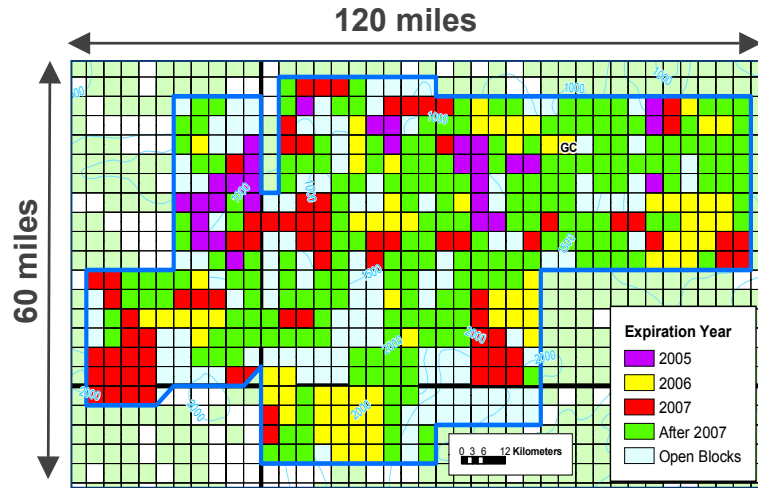
Using analogues to carry out Seismic Interpretation



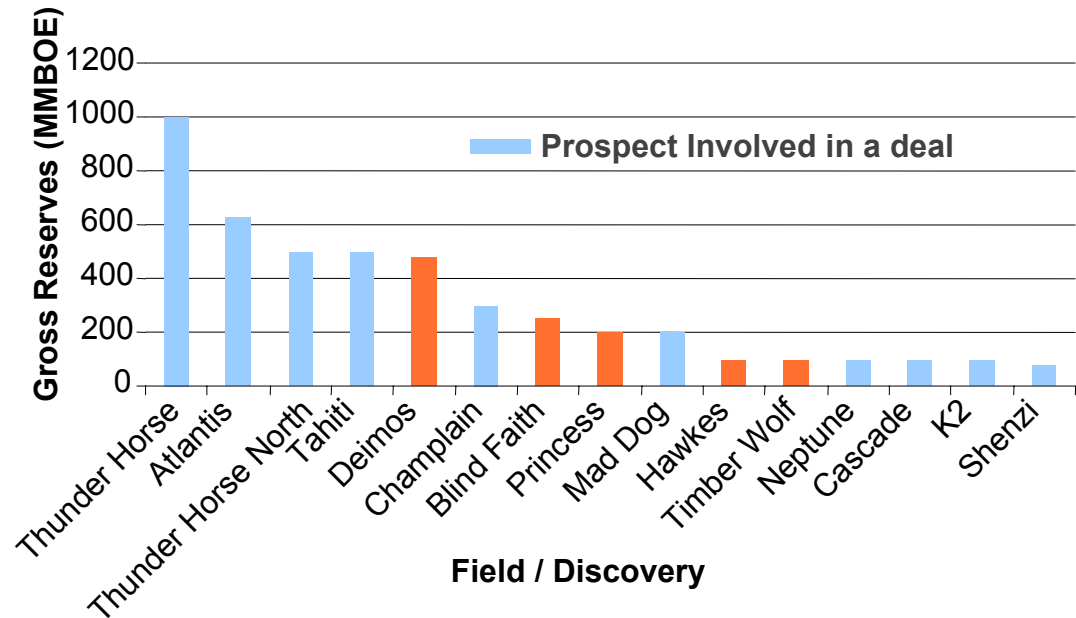
**Actual sedimentary deposits on sea floor used as
a model for describing 40 My old channel**

Business challenges

Deep Central GoM lease expiration



Gulf of Mexico Deepwater Eastern area Gross Reserves Discovered - Non-Conventional Plays



Deep GoM Business Challenge

► Capture acreage through OCS sales (competitive bidding)

► Capture prospective acreage through farm-in and/or alliances



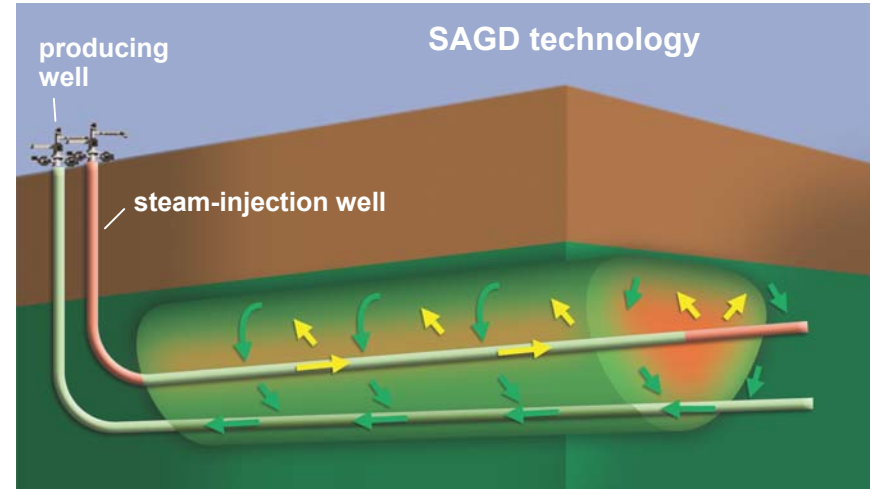
Heavy oil: adding long-term assets to the portfolio

Sincor (47%) - Venezuela



- Successful development and start-up
- Achieved production level at 200 kb/d (EHO)
- 35-year concession
- Potential to increase production

Athabasca - Surmont (43.5%) - Canada

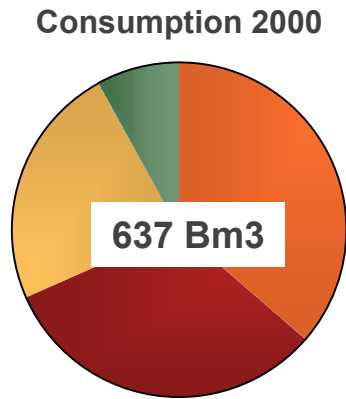


- SAGD* pilot program successful
- Preparing for Phase I (≈ 25 kb/d)
- Promising technology
- High potential for reserves

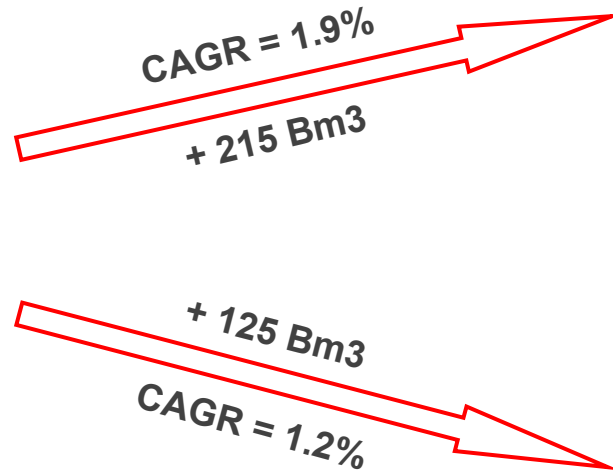
* SAGD: Steam Assisted Gravity Drainage



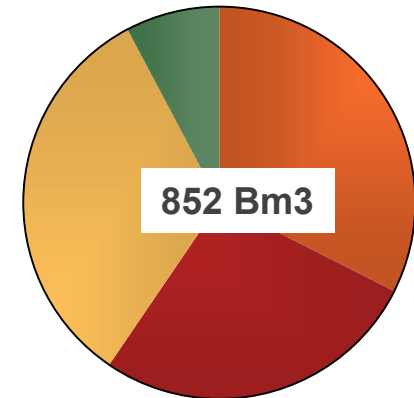
US gas market fundamentals: 2015 gas demand scenario



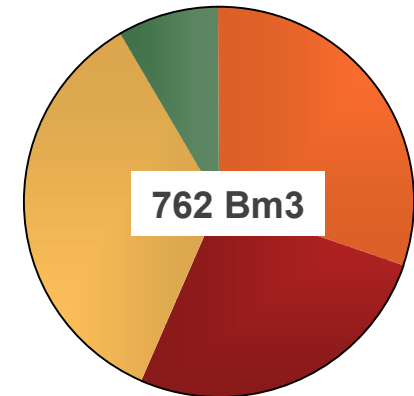
- Residential/Commercial
- Base industrial
- Total Power
- Other



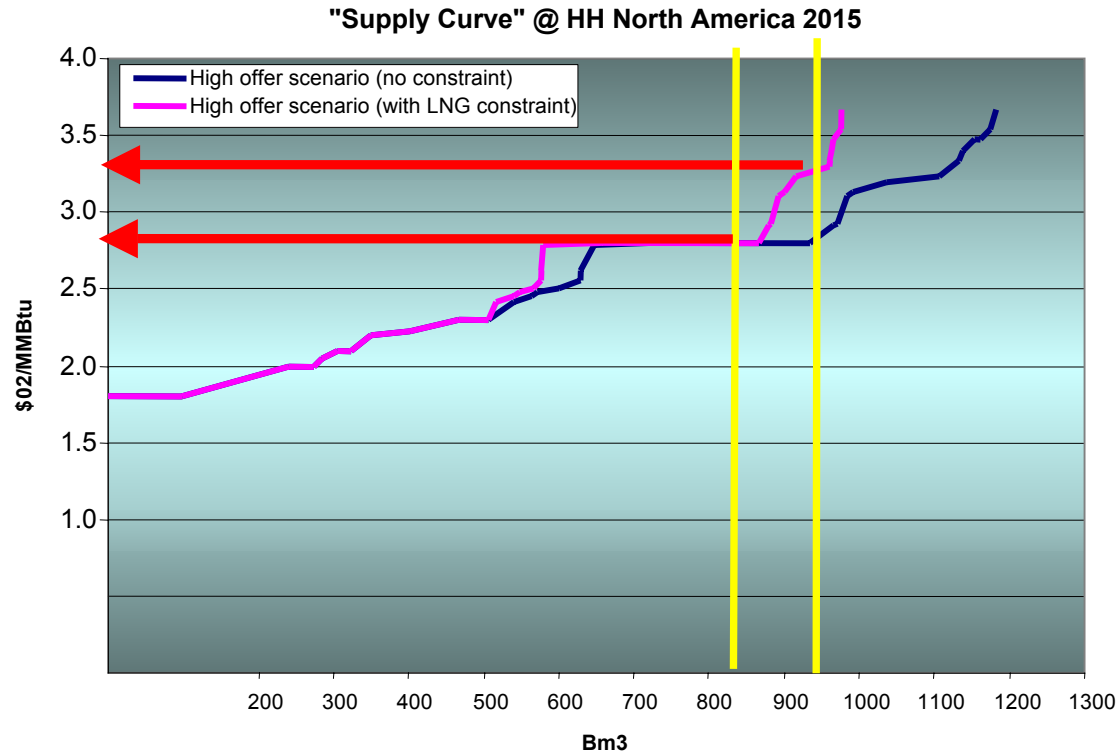
Estimated consumption 2015 - High



Estimated consumption 2015 - Low



US Henry Hub gas price scenario (2010-2015)



- **Supply economic constraints:**

Long-term gas price > 2.7 to 3.3 \$/mmbtu

- **Inter-combustible electricity generation competition:**

Long-term gas price < 3.8 \$/mmbtu



North America:

Expanding Total gas portfolio under gas price constraints

■ Onshore US:

- Manage Cash and Capex according to gas price
- Expand on and around existing properties

■ GoM:

- A rewarding play even for medium size projects (Canyon Express)

■ LNG import:

- Take position on LNG terminal to feed with equity competitive gas (Snohvit, Nigeria, Qatar)

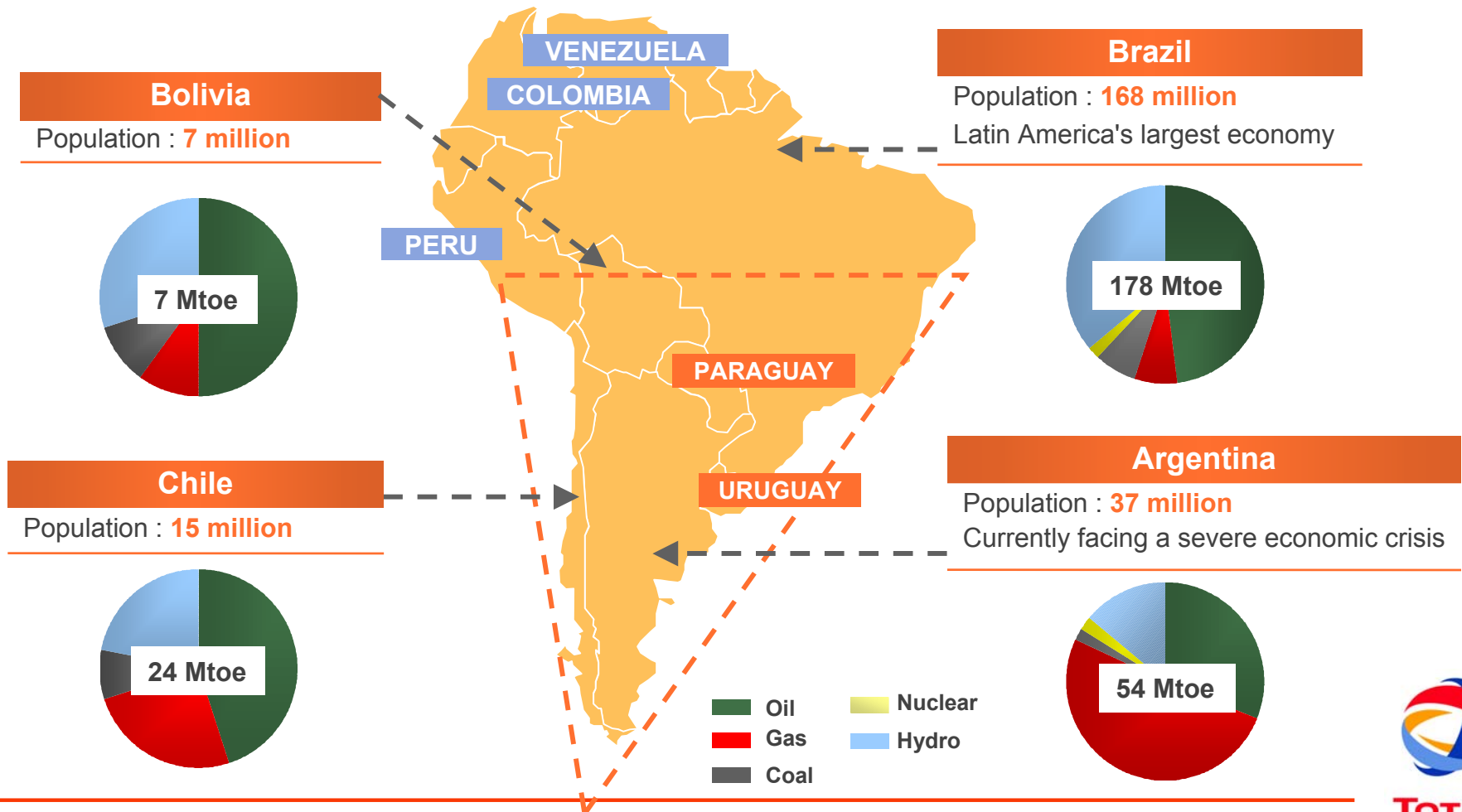
A step by step portfolio construction based on prudent gas price scenario



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Southern Cone: economic situation and energy demand

- Population = 236 million
- 5% of the world's GDP ; average GDP/capita ~ 5,000 US\$
- Sustained growth over last decade (GDP:+3,3% p.a., gas demand:+6.7% p.a., electricity:+5% p.a.)



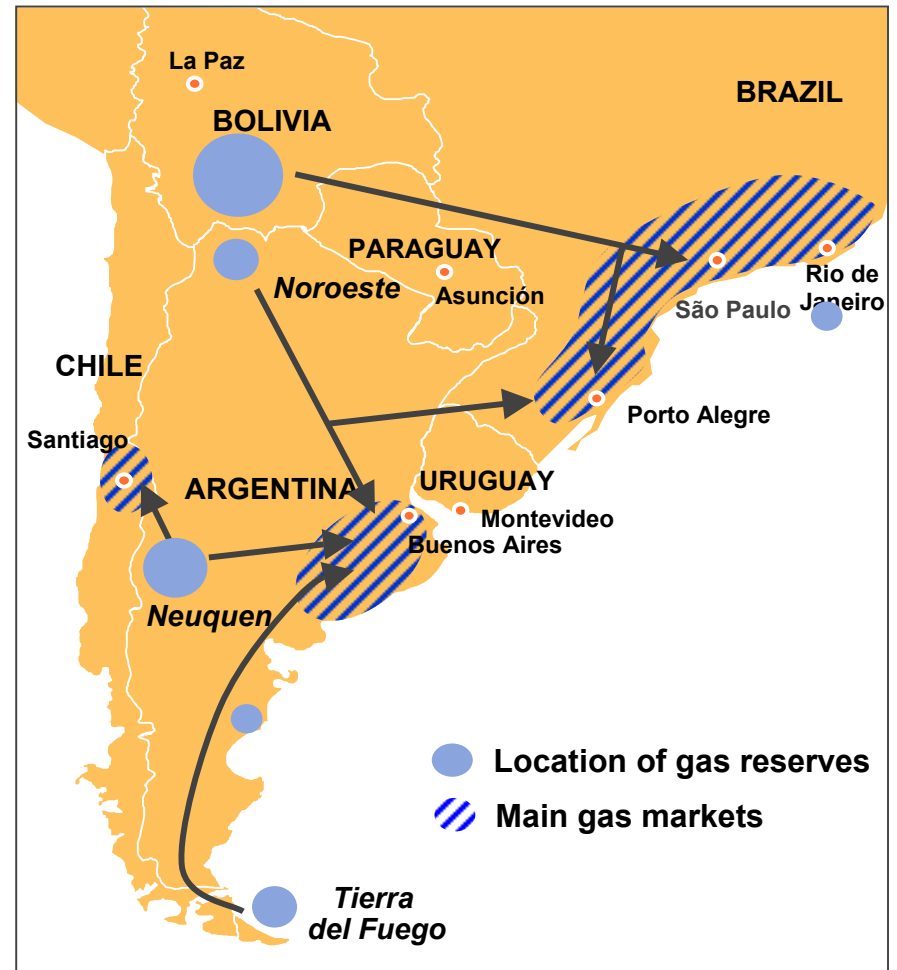
Southern Cone regional gas market

Reserves :

- Argentina and Bolivia have significant gas resources
- Regional gas reserves have been recently enhanced with important discoveries in Bolivia

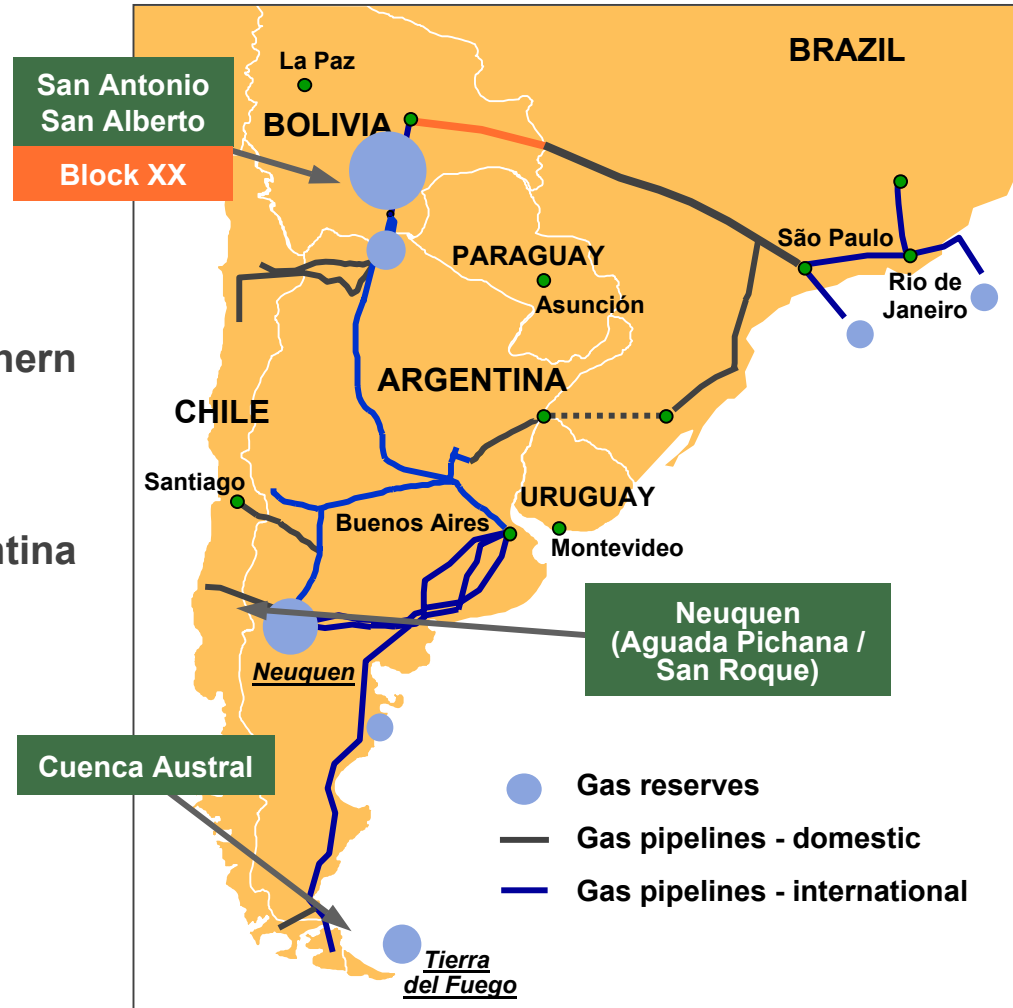
Access to markets :

- Reserves are fairly remote from the main markets (Buenos Aires area, Southern Brazil, Central Chile)
- The development of gas pipelines is critical for gaining access to the market



Gas positions of Total in the Southern Cone

- ▶ Total: major upstream player in the Southern Cone with Repsol-YPF and Petrobras
- ▶ Total : 2nd largest gas producer in Argentina and holder of large reserves in Bolivia.



Southern Cone gas market: long-term growth - adaptability to short term crisis

■ Fundamentals:

- Large gas reserves (Argentina, Bolivia) and a well established interconnected and expanding market (Argentina, Bolivia, Brazil, export ?)

■ Total benefits from a strong and valuable gas portfolio and is willing to:

- Optimize supply / demand allocation to increase margin - Capture additional local, national or export market shares
- While maintaining a flexible approach (timing / product mix) until economic fundamentals prevail



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Conclusion

■ Diversified and growing portfolio of assets

- Large additional gas reserves to be monetized
- Leverage success of Sincor to expand on heavy oil plays
- Build on a better geosciences knowledge in deep GOM

■ Concluding remarks



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