



CANADA-NOVA SCOTIA
OFFSHORE PETROLEUM BOARD

\$ 1 Billion Exploration Program for Nova Scotia

March 6, 2012

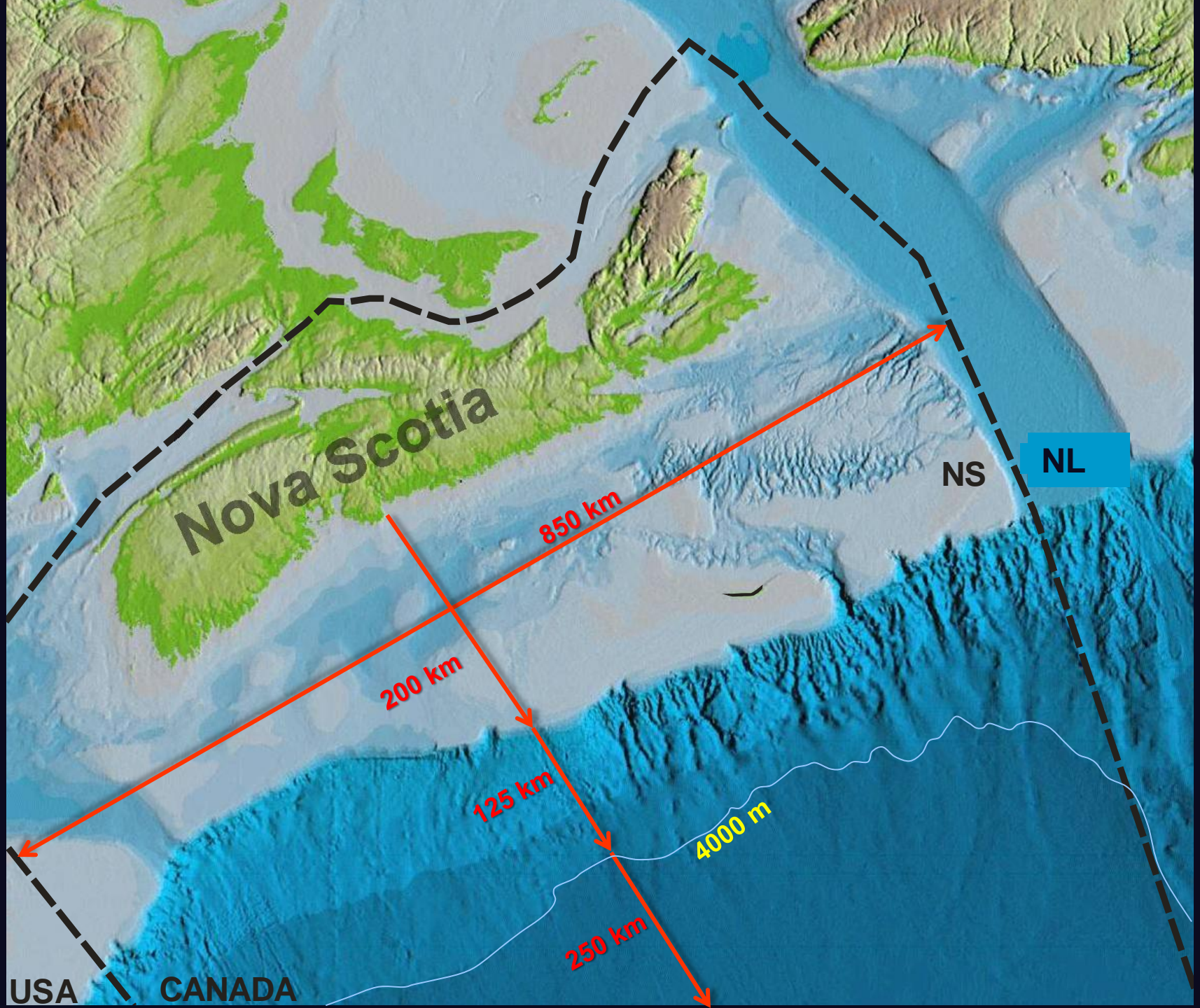
APPEX London

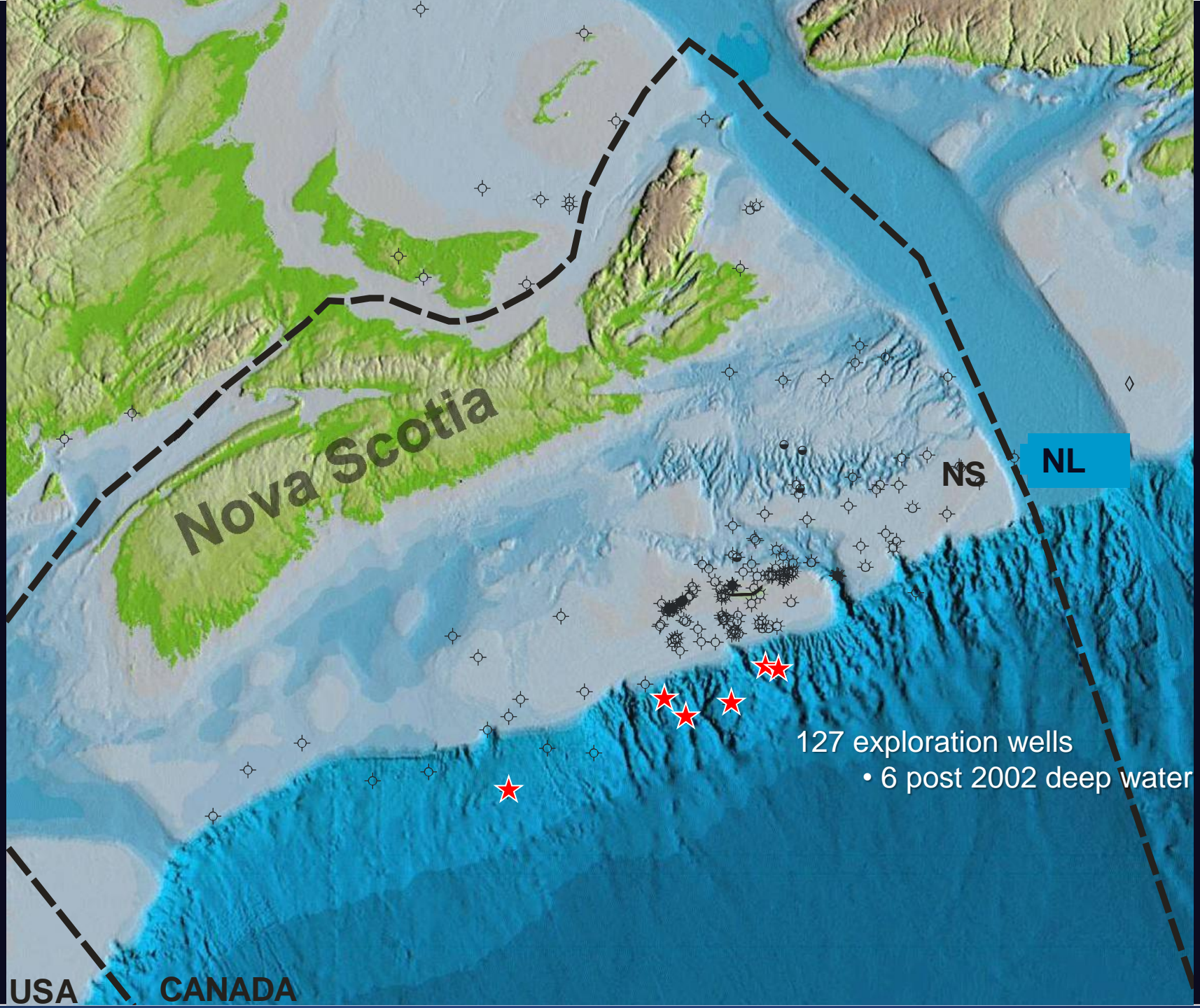
Brenton Smith

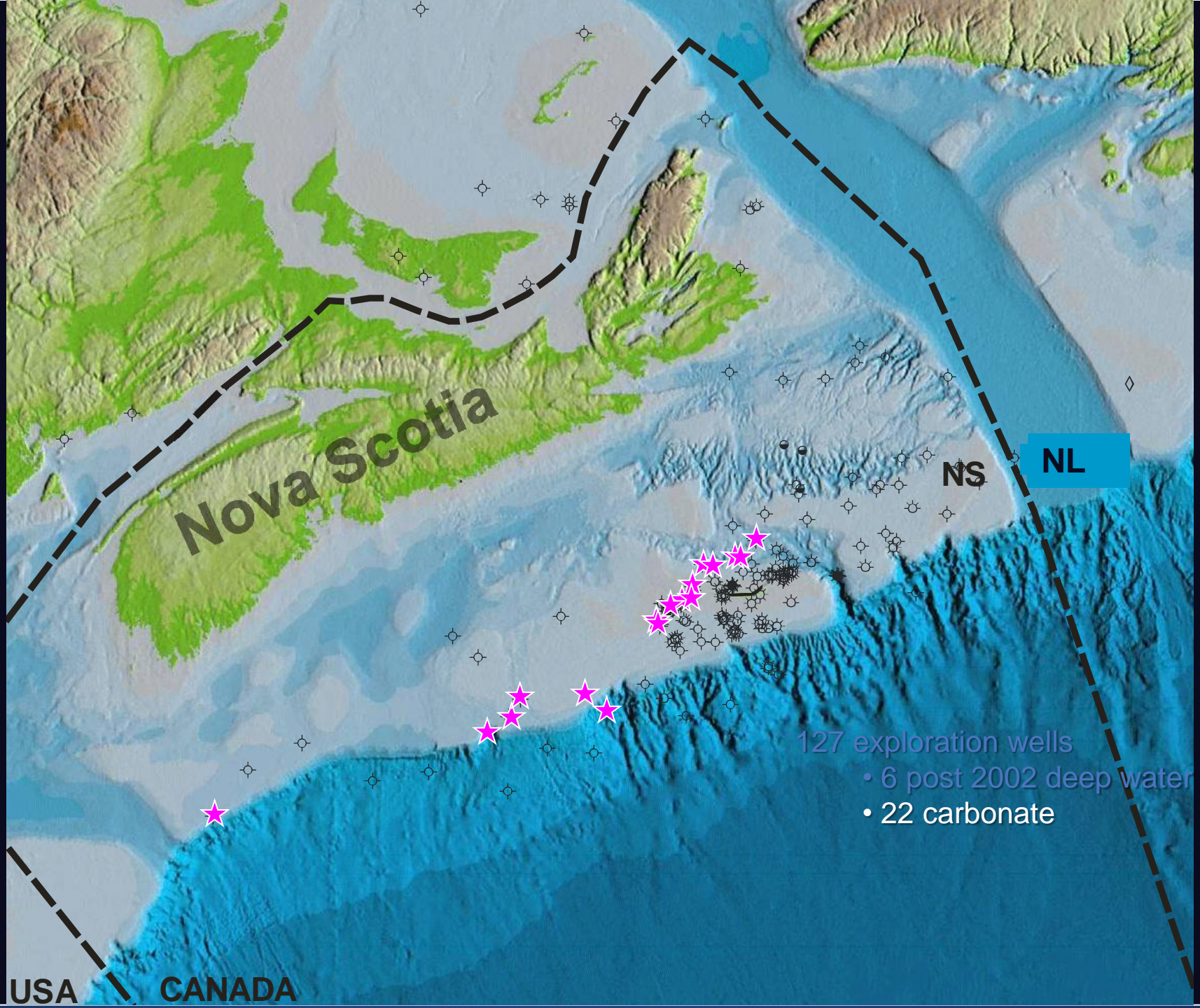


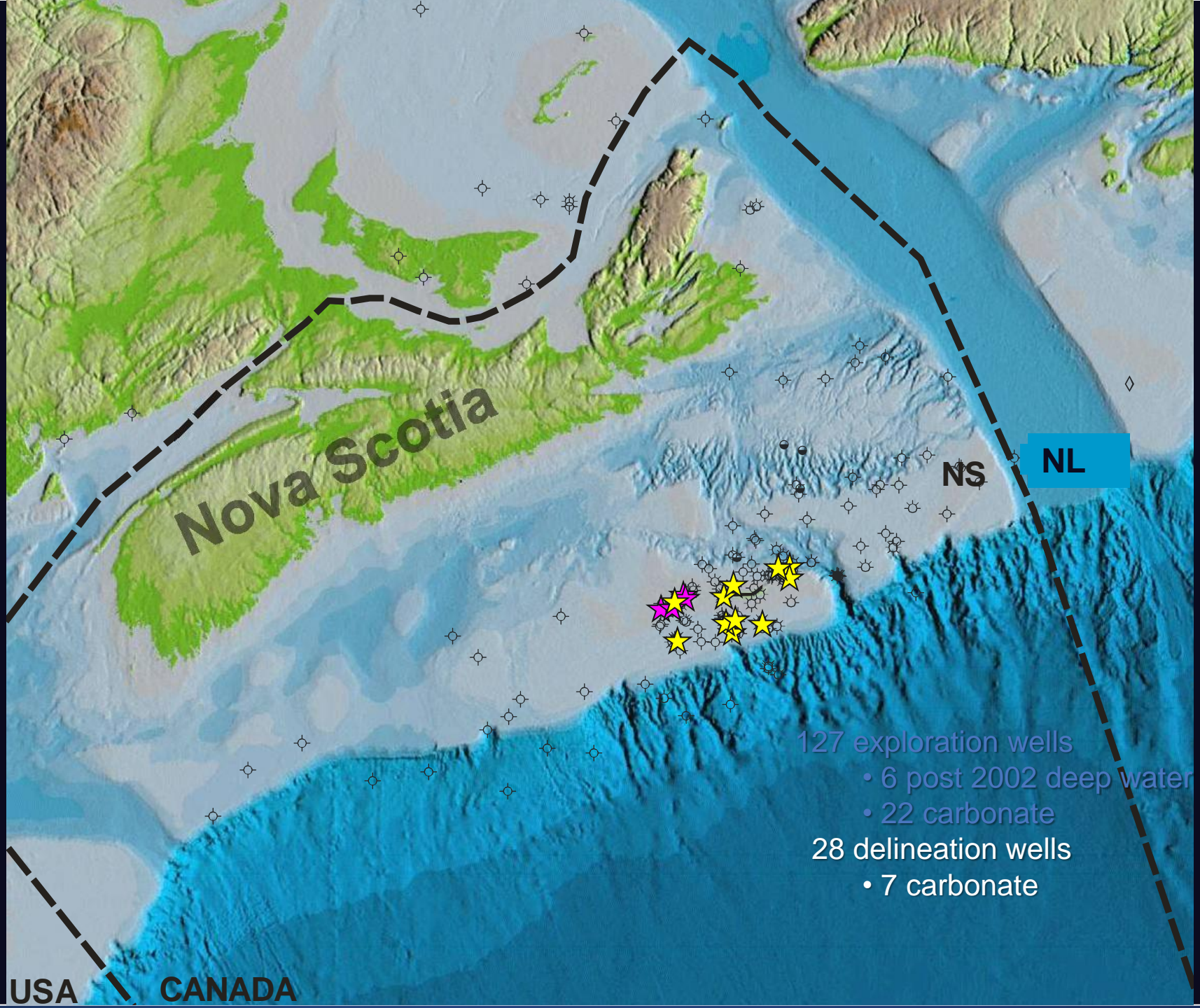
Outline

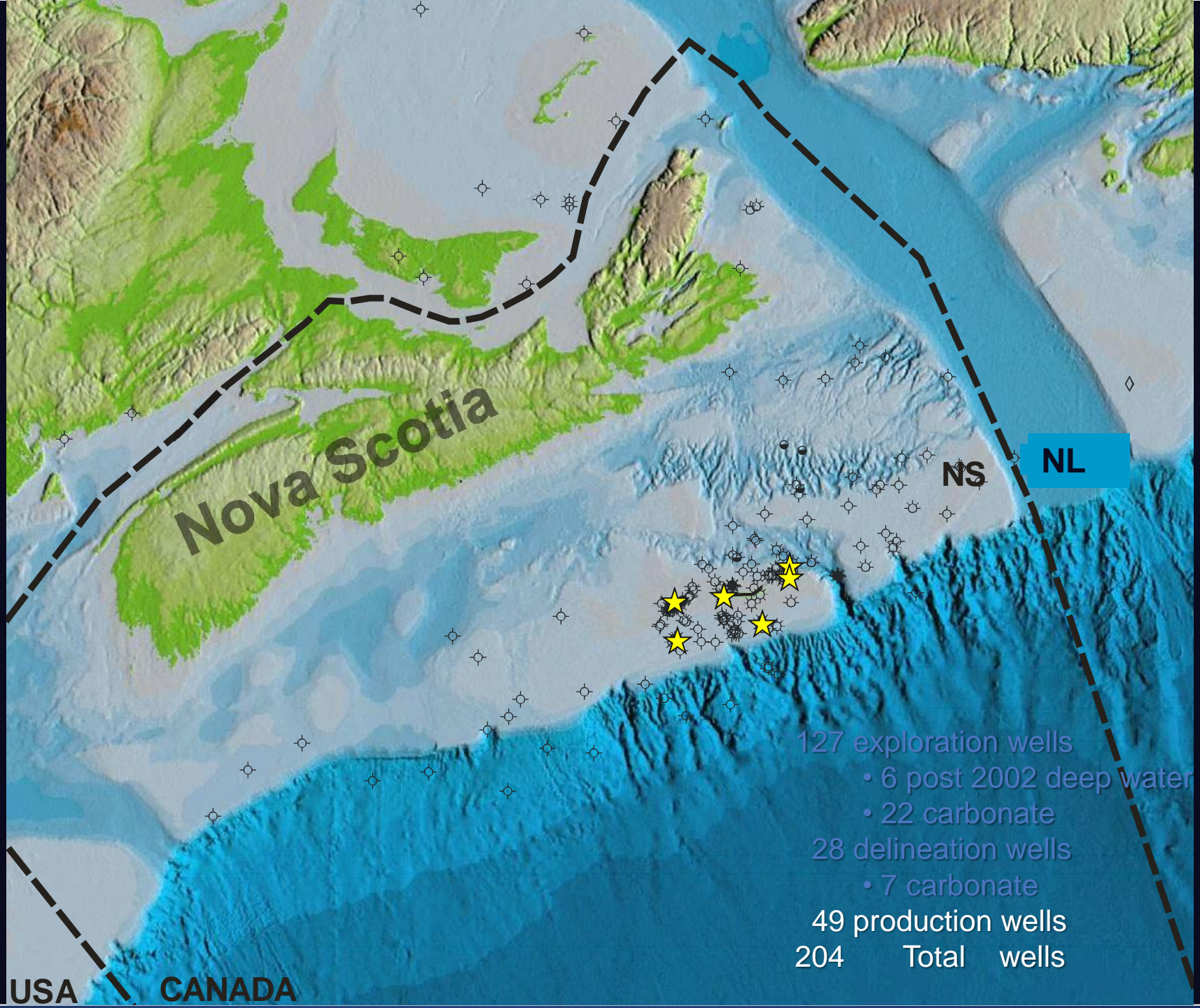
- Regional introduction to offshore NS
- Results recent Call for Bids
- Introduce forecasting system → Call for Bids
- Upcoming Call for Bids → Prospects











Current Production and Infrastructure



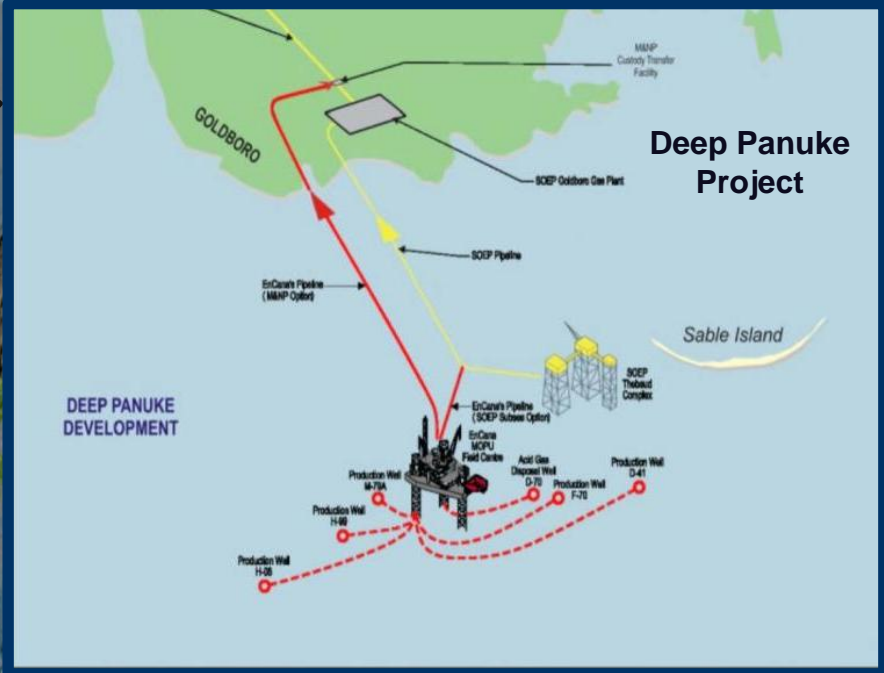
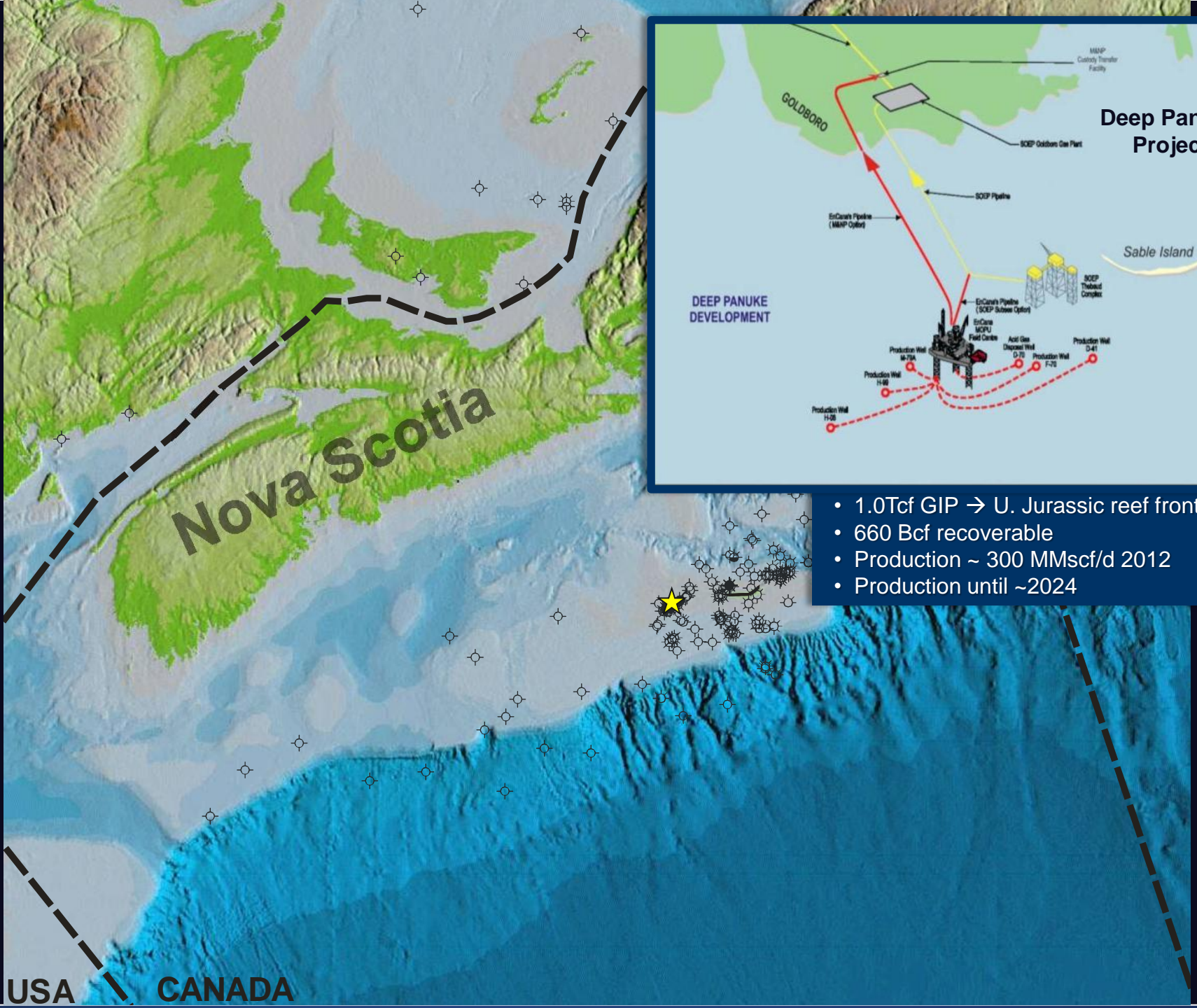


Sable Offshore Energy Project

Nova Scotia

USA CANADA

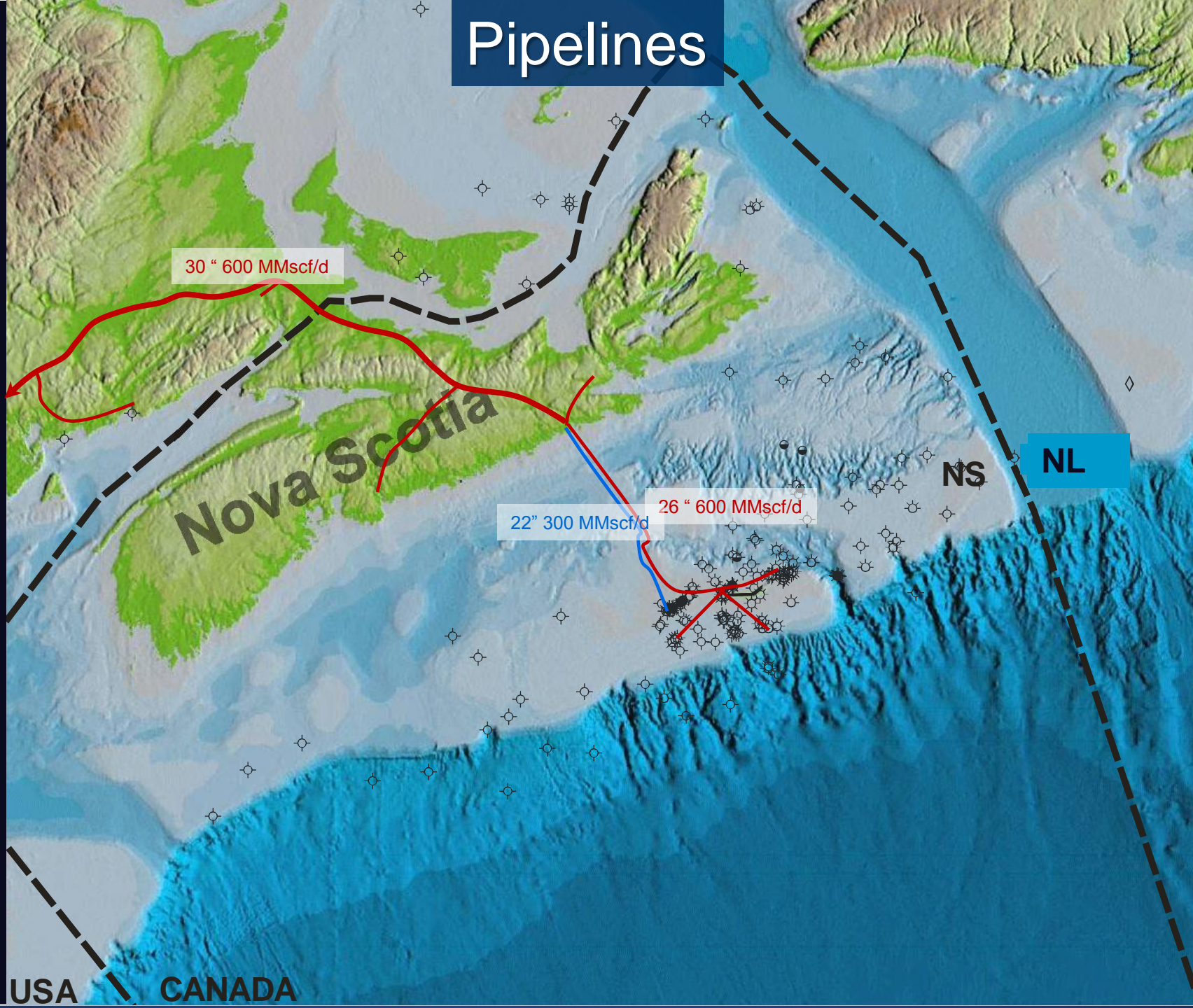
- 5 field development → online 1999
- Cretaceous – Jurassic sands
- 1.8 TCF produced → end 2011
- 274 MMscf/d

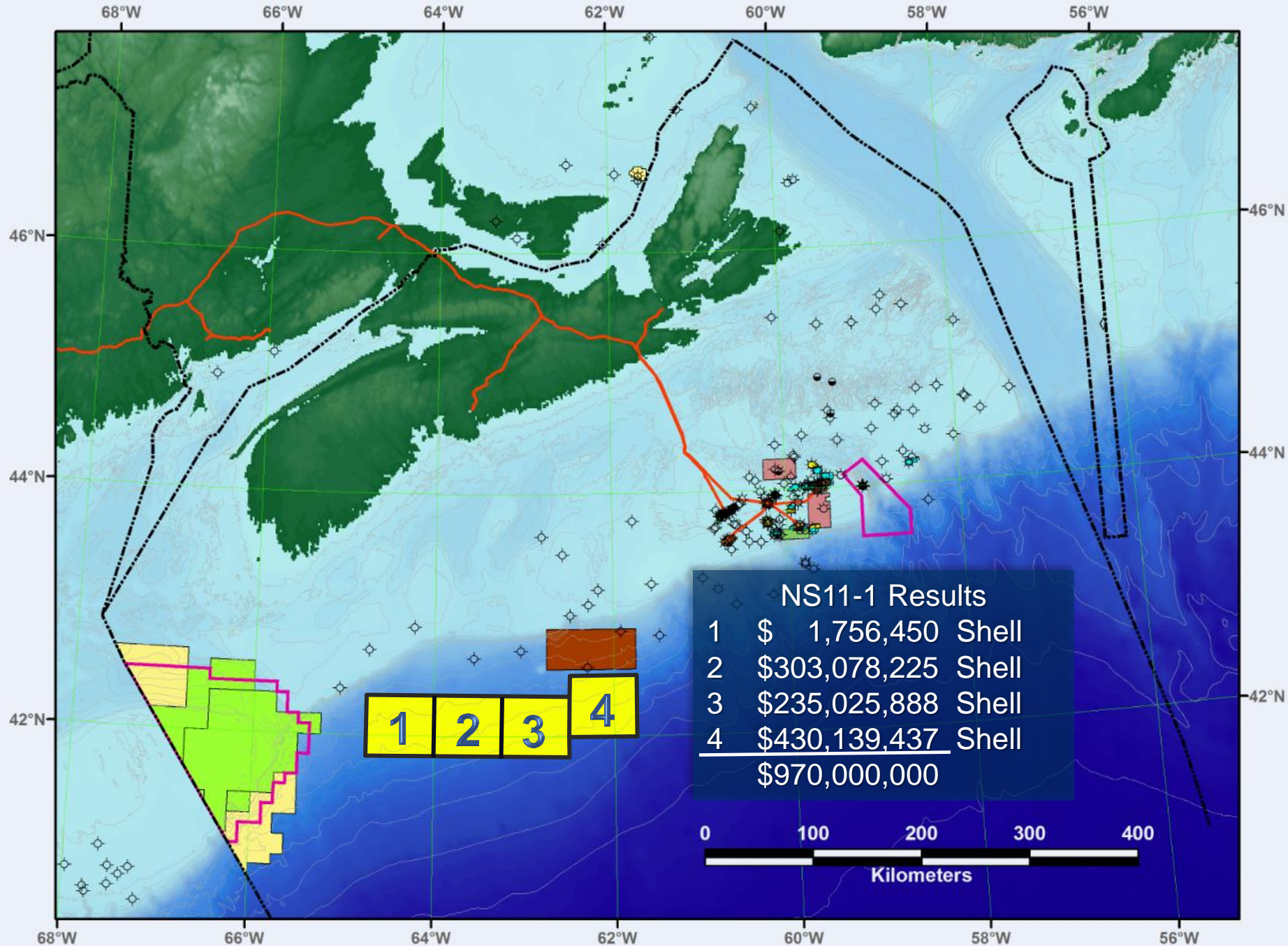


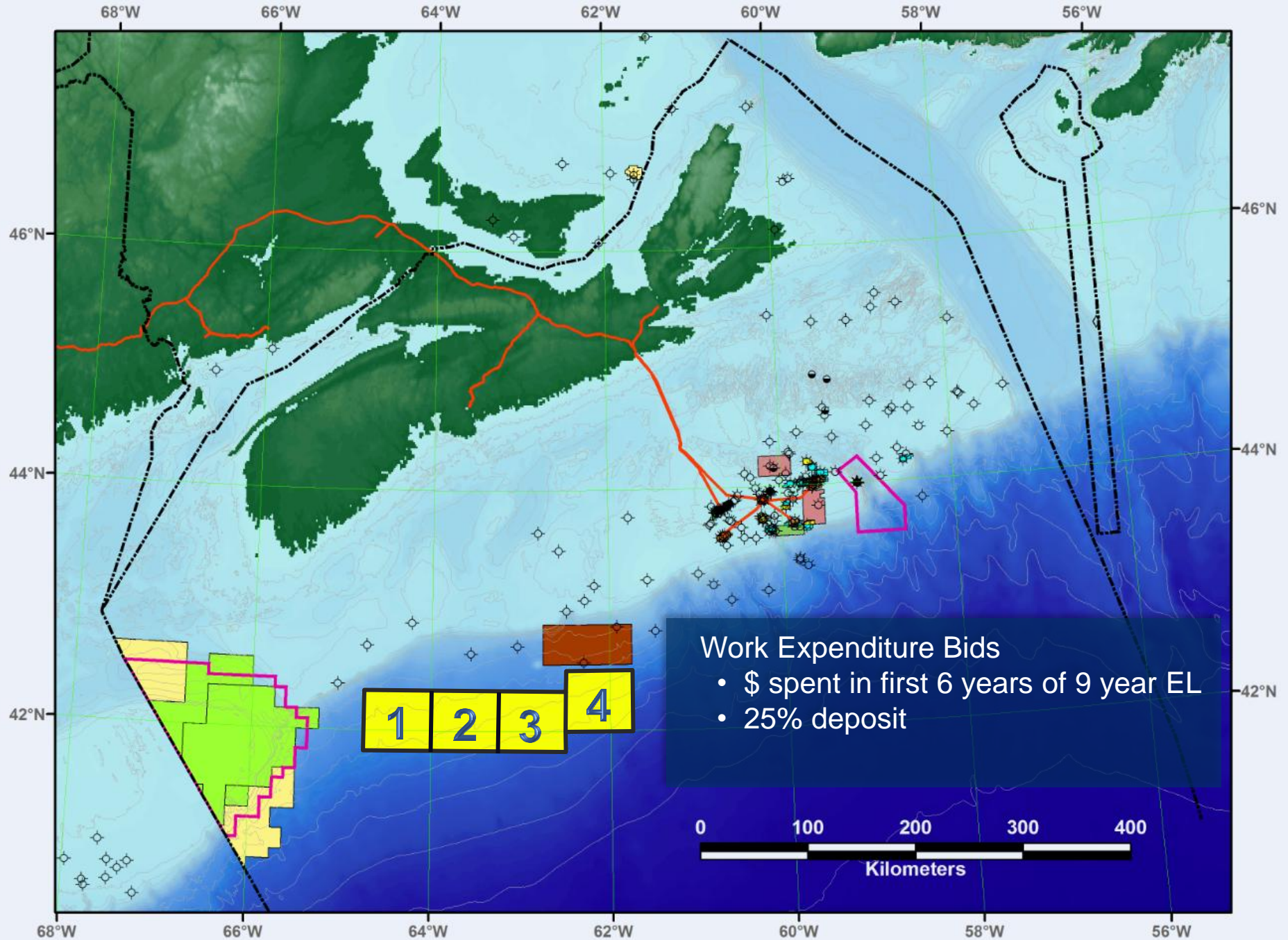
- 1.0Tcf GIP → U. Jurassic reef front
- 660 Bcf recoverable
- Production ~ 300 MMscf/d 2012
- Production until ~2024

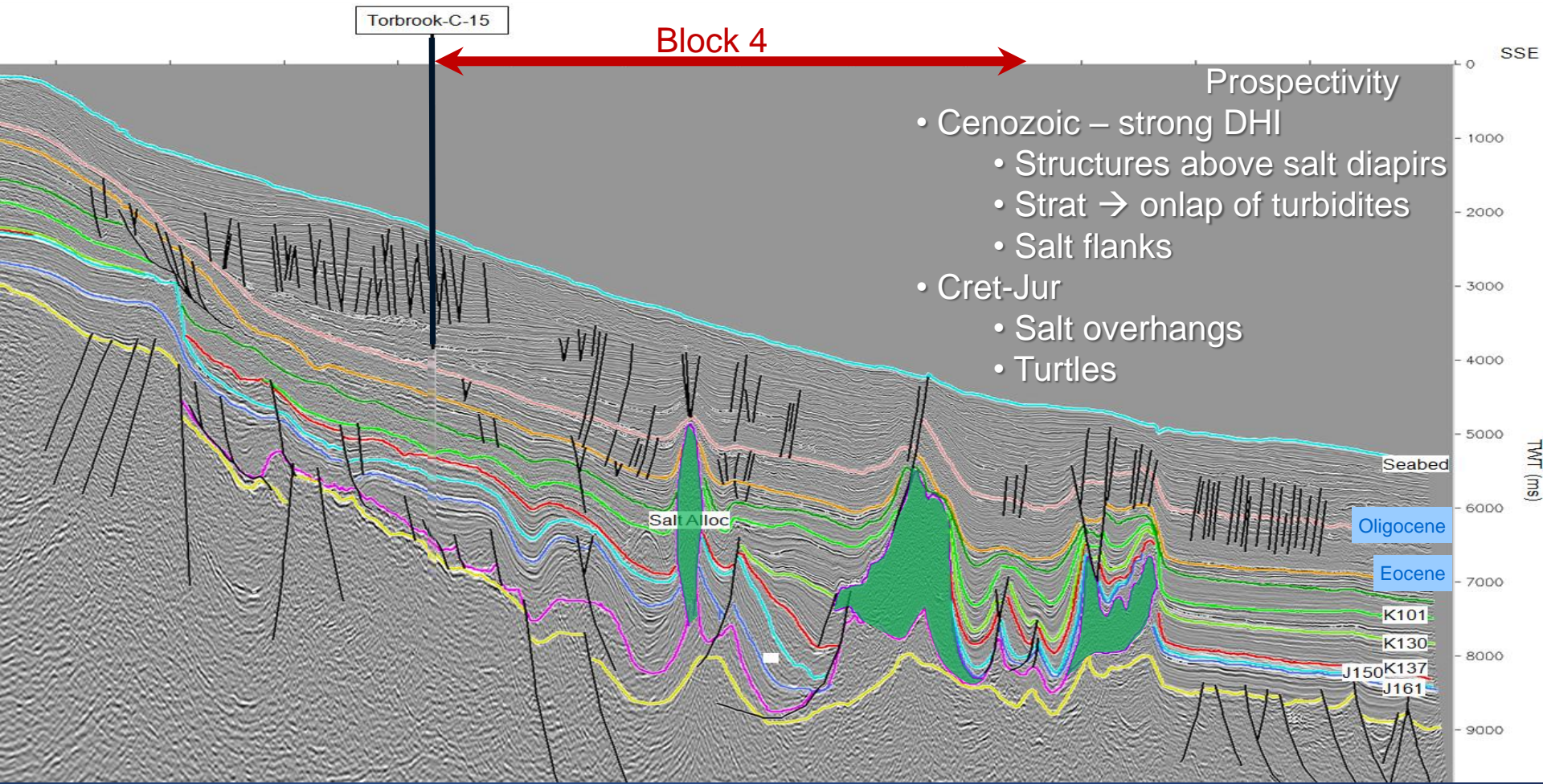
USA / CANADA

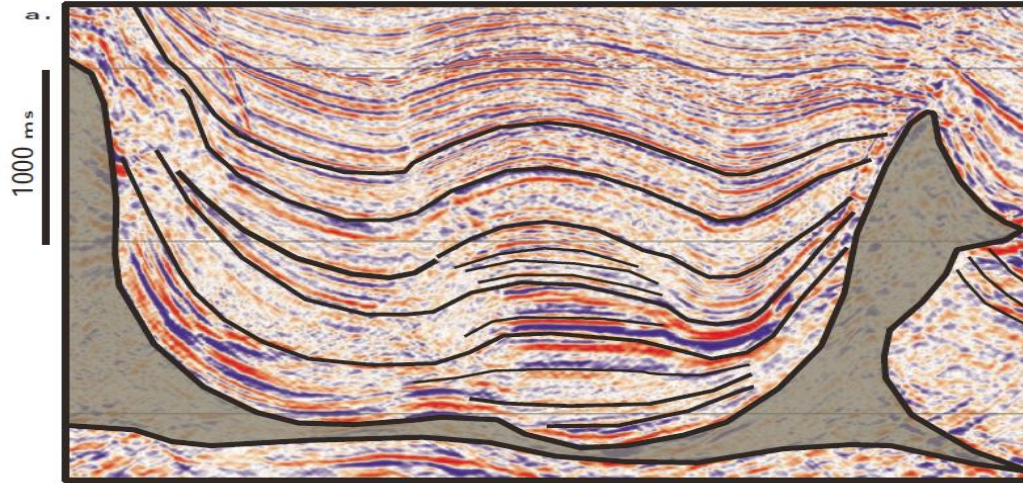
Pipelines



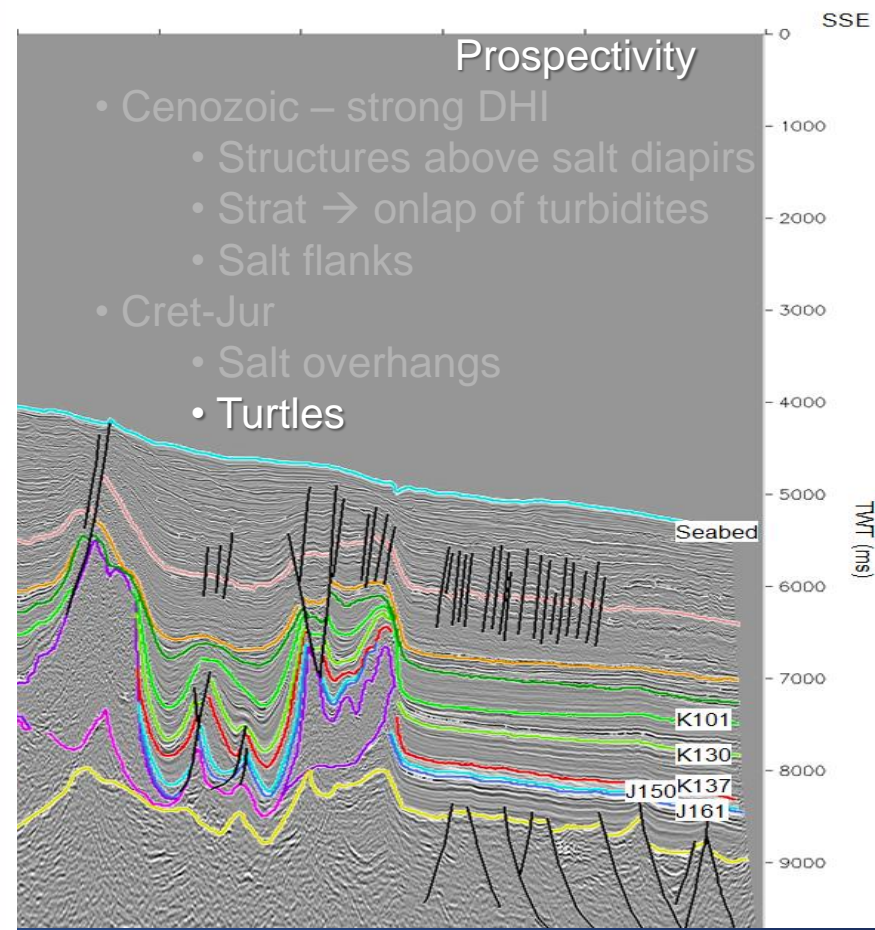
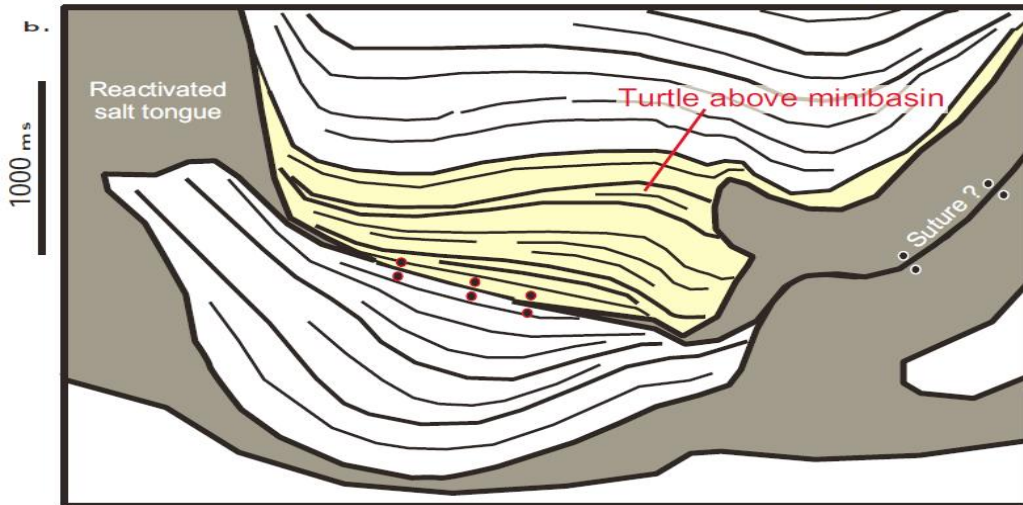








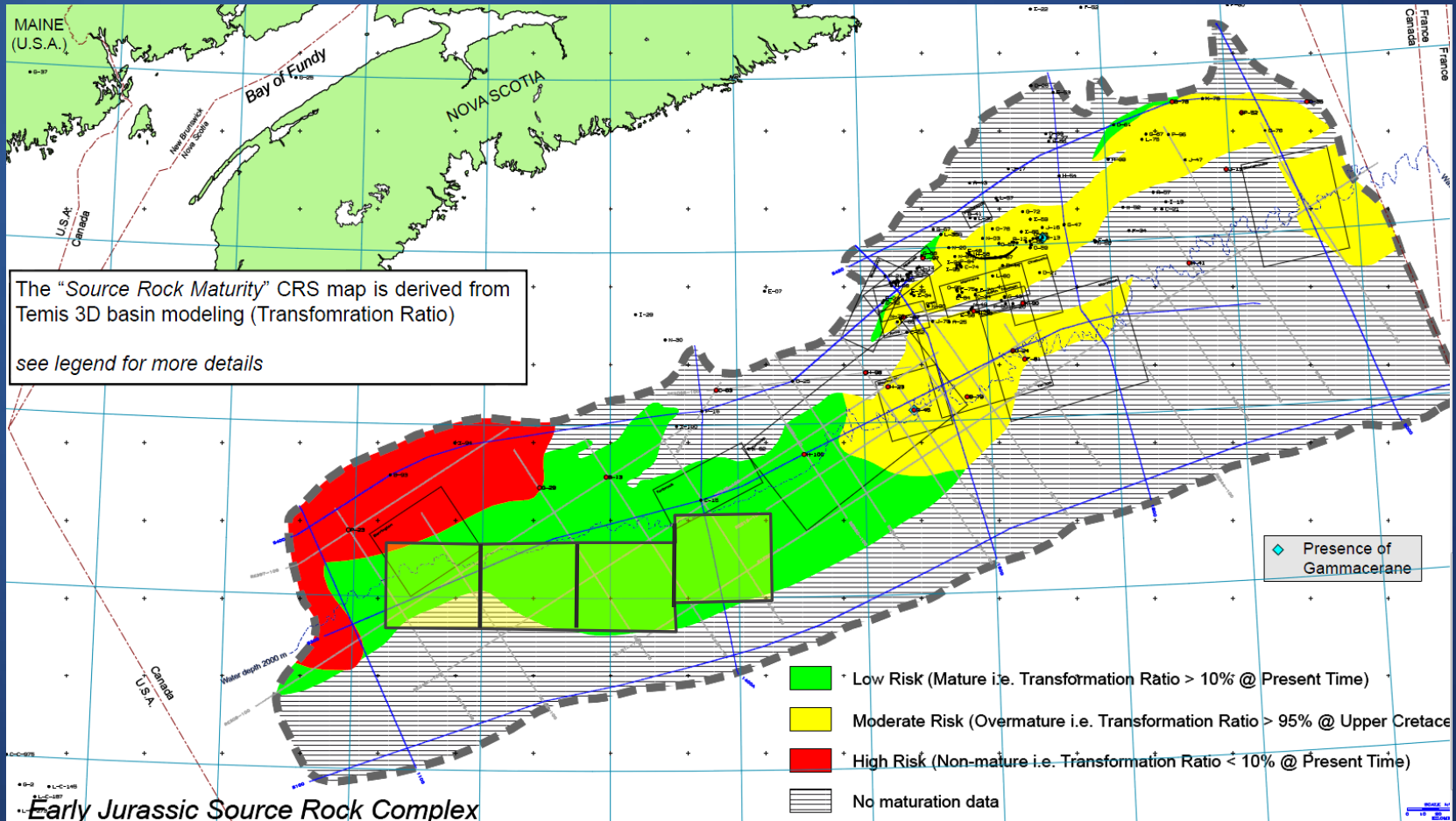
From Kidston et al. (2007)

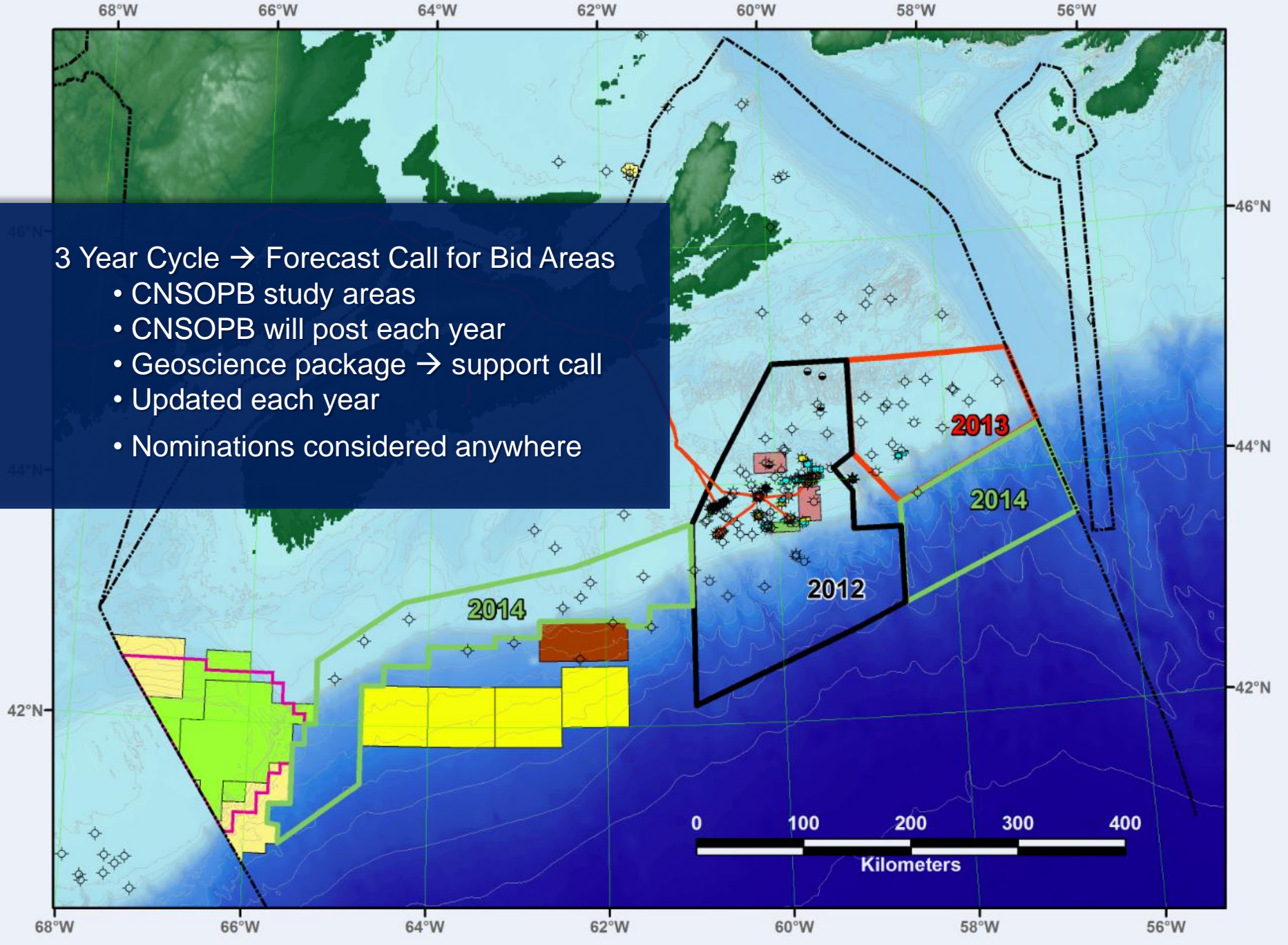


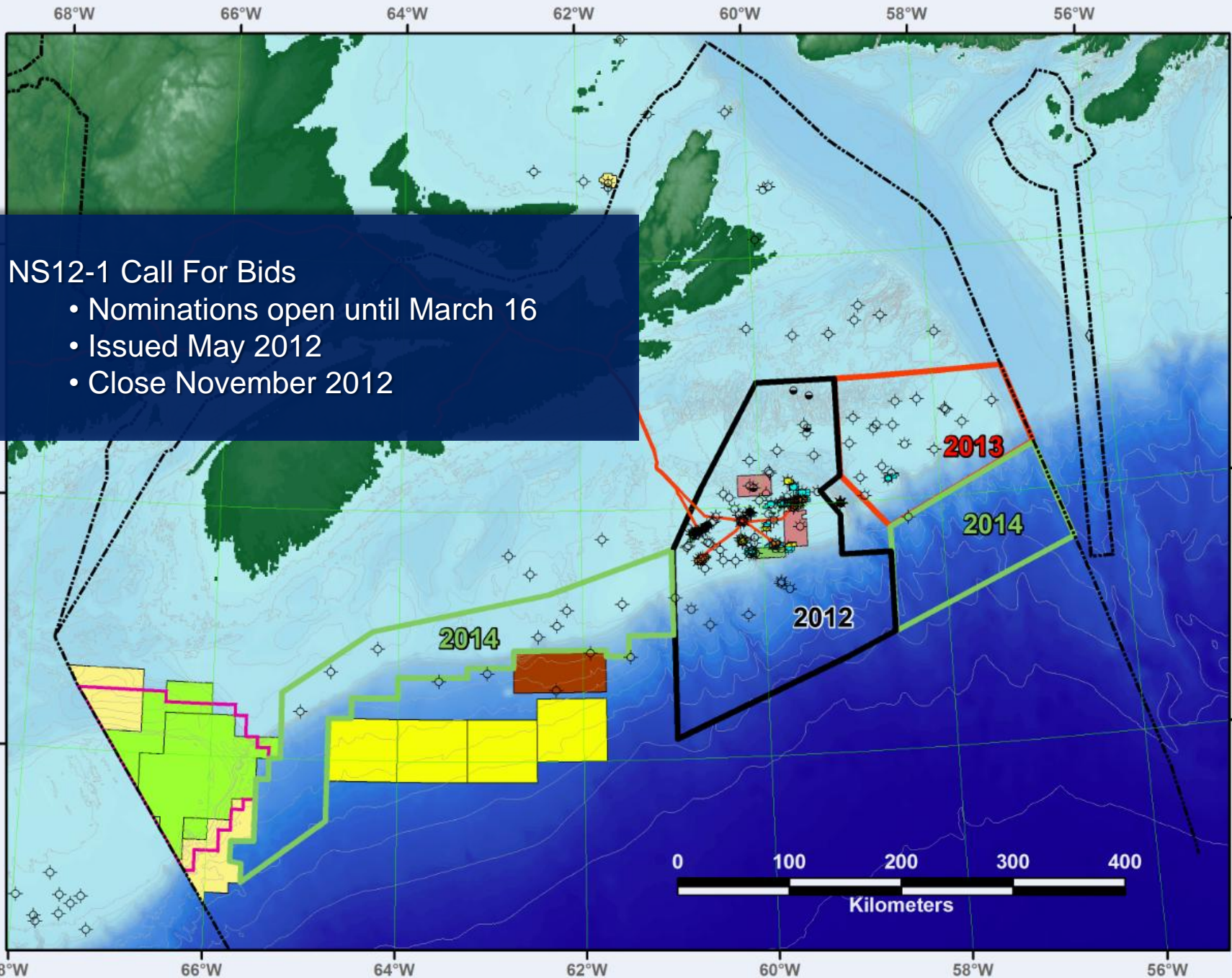


Possible Oil

- Oil prone Pliensbachian SR
- Present day oil window



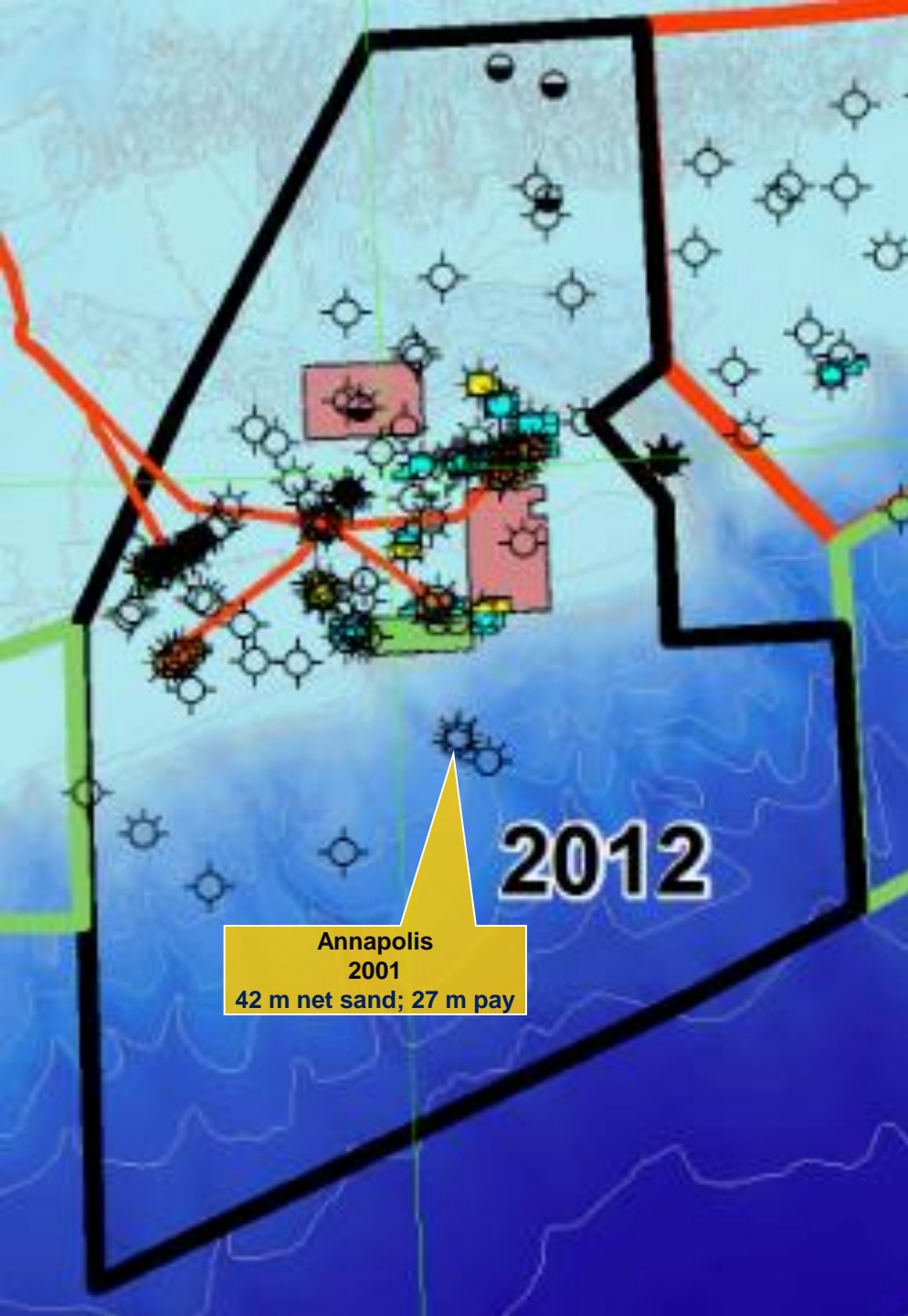






2012 Study Area

- Deep water
- Sable sub basin shelf
- Western Abenaki sub basin



Annapolis
2001
42 m net sand; 27 m pay

2012

Deep Water

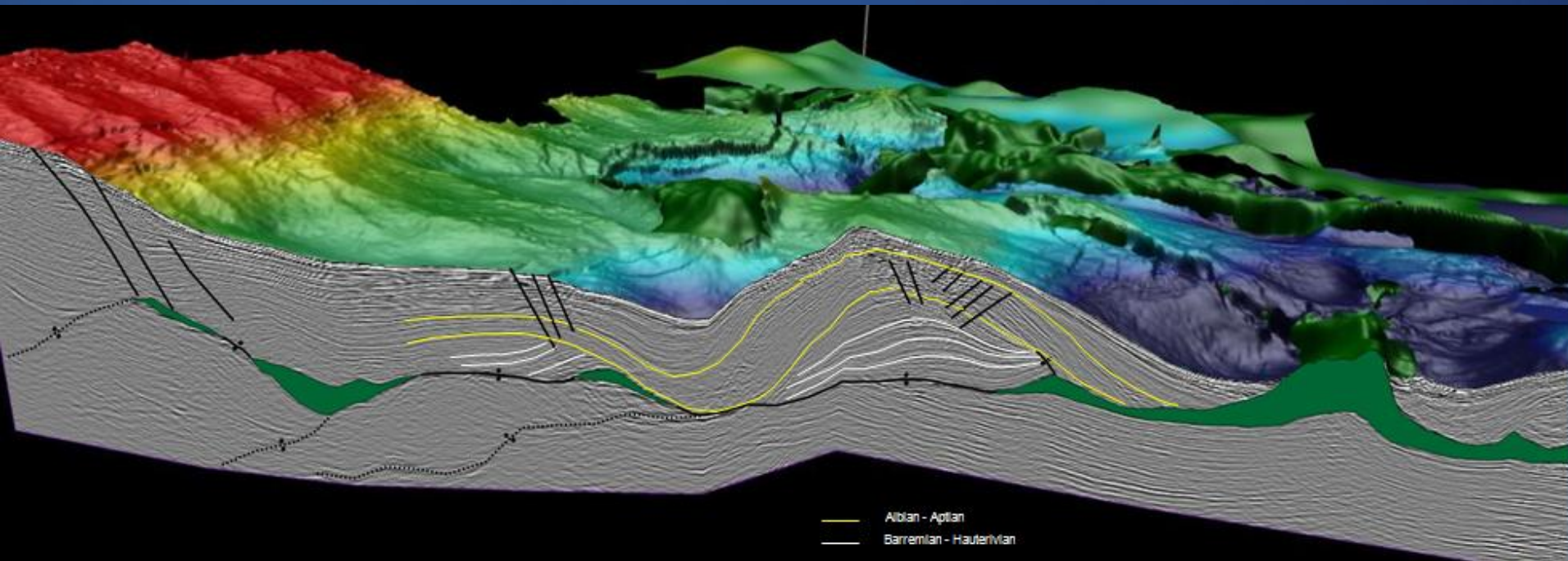
- Large multi TCF prospects
- 12 leads 15 → 200 km²
- Water 1500 → 3200m
- Proven gas pay

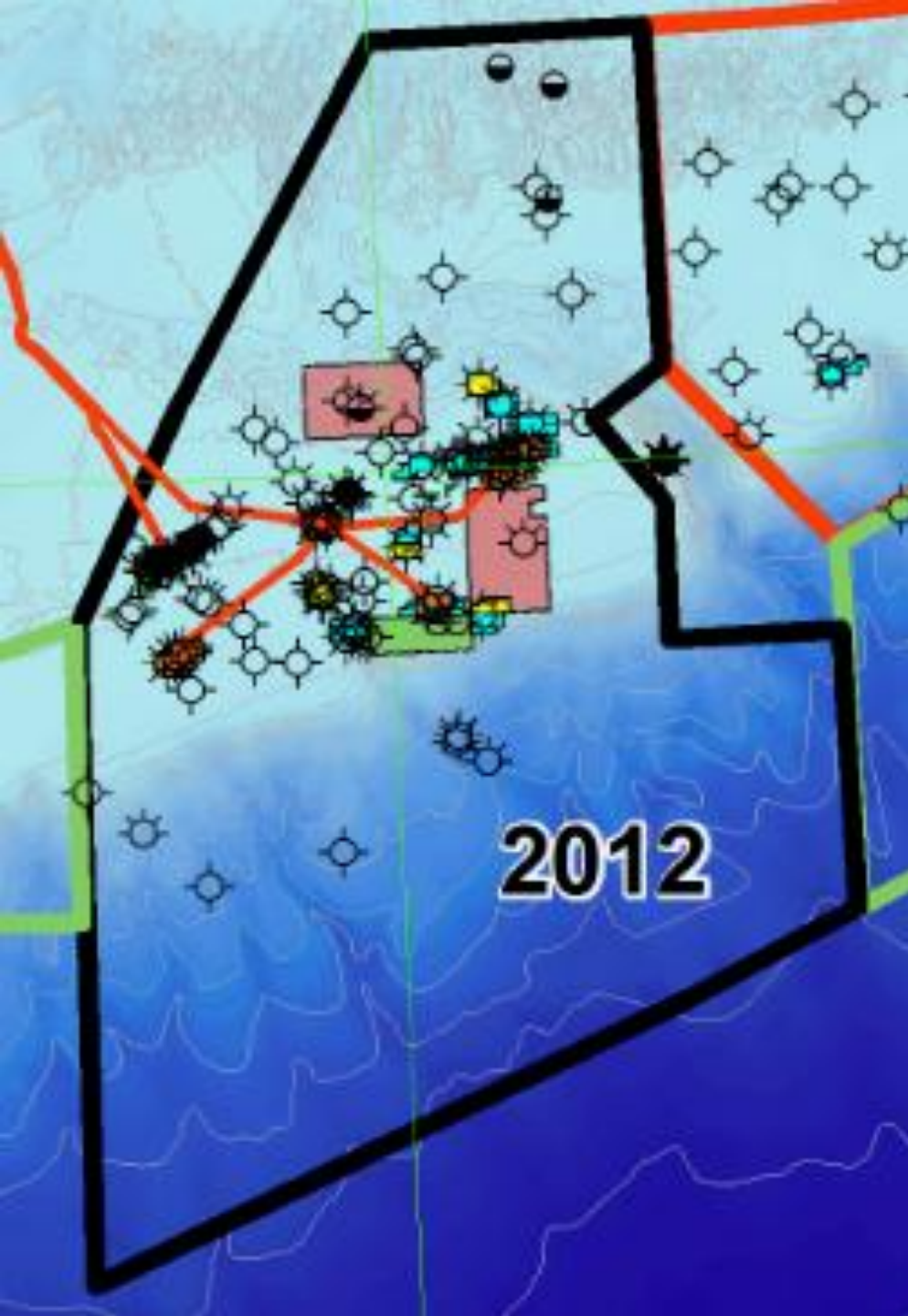


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Deep Water Prospect

- Closures 25 → 80 km²
- P50 Area 31 km²
- P50 Net Pay 50 m
- P50 Porosity 22 %
- Mean In Place 4.3 tcf





Sable Sub Basin

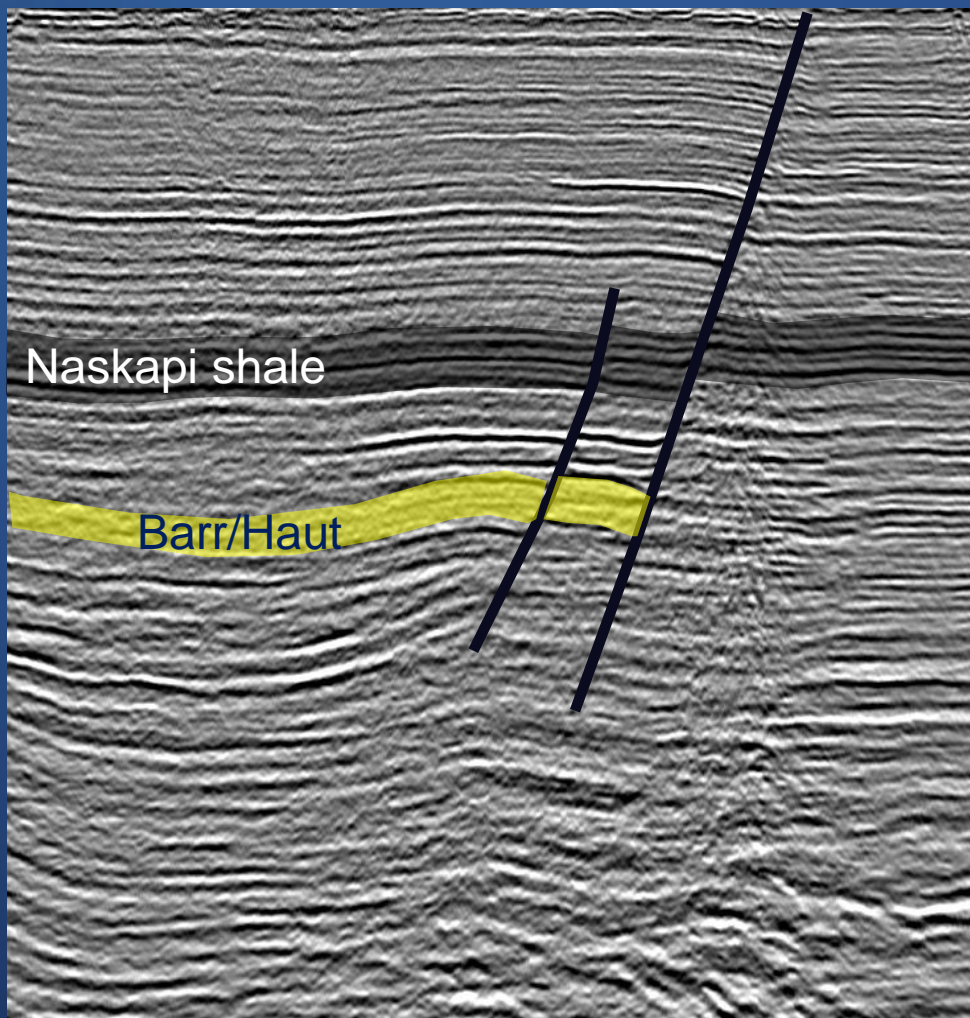
- Infrastructure in place
- Water depth 50 - 150m
- 1.8 TCF produced
- 45 million BBL oil produced
- 23 Significant Discoveries
- 55 leads → 16 Tcf GIIP*

*Shell OTC paper 22028

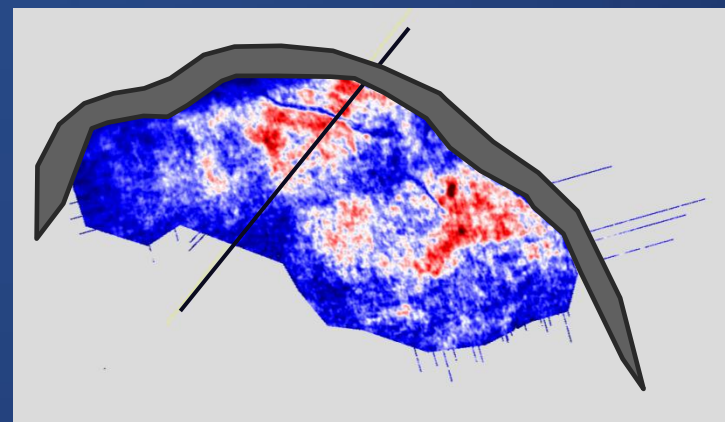
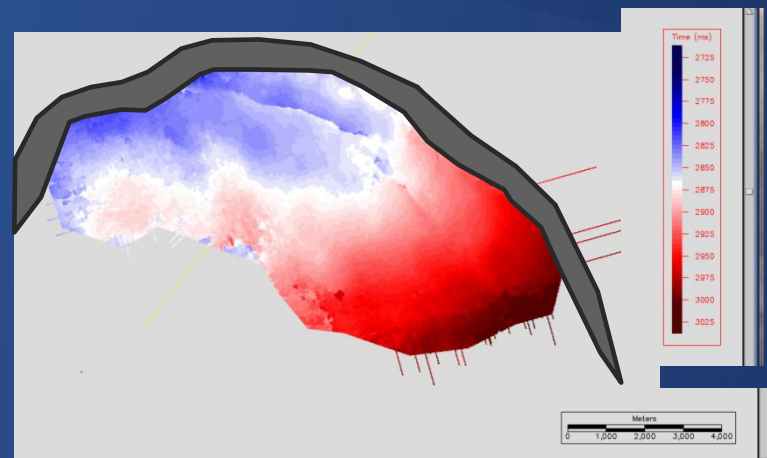
Sable Sub Basin Prospect

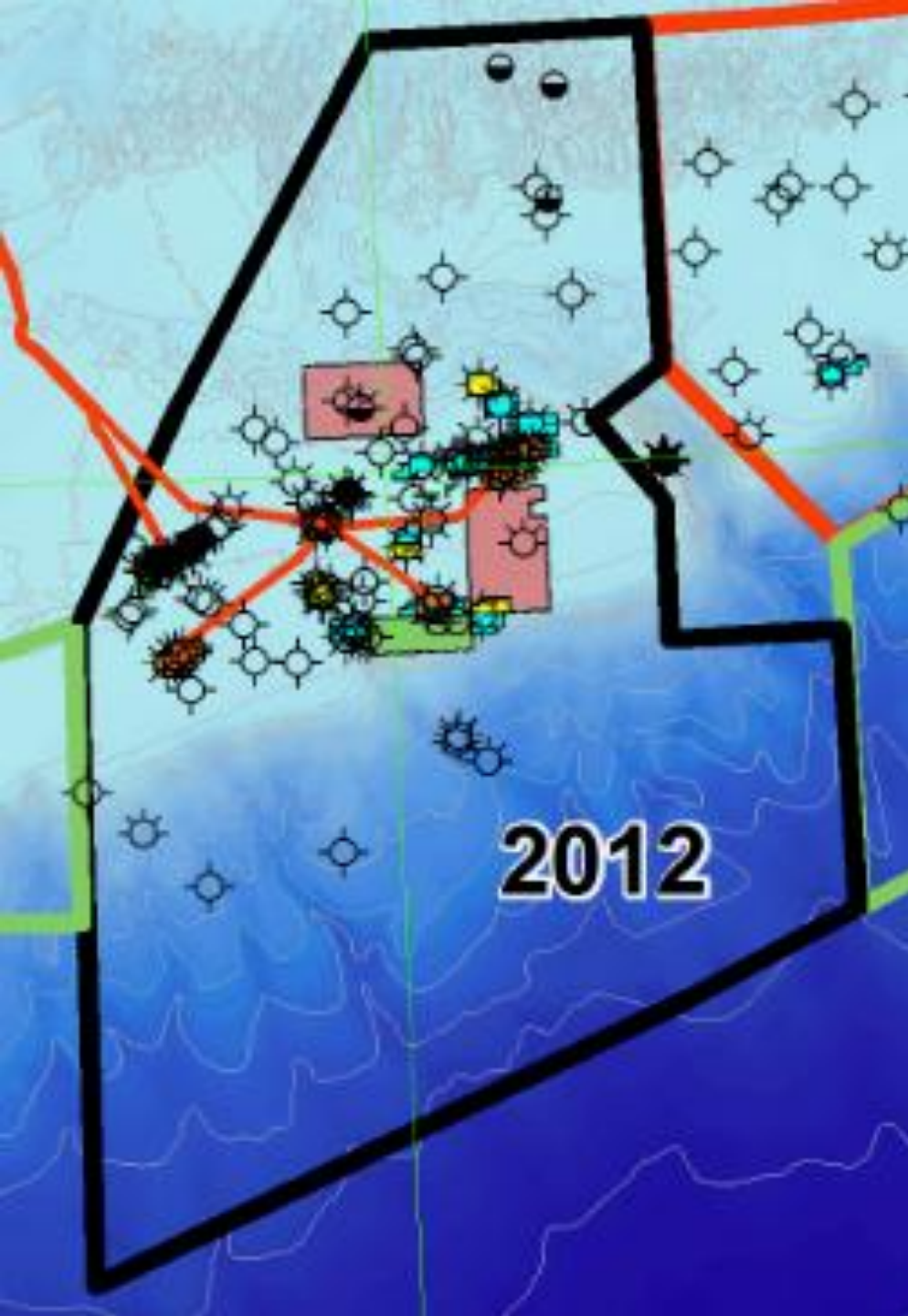


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Molega – Up. Miss Rollover





Western Abenaki Sub-basin

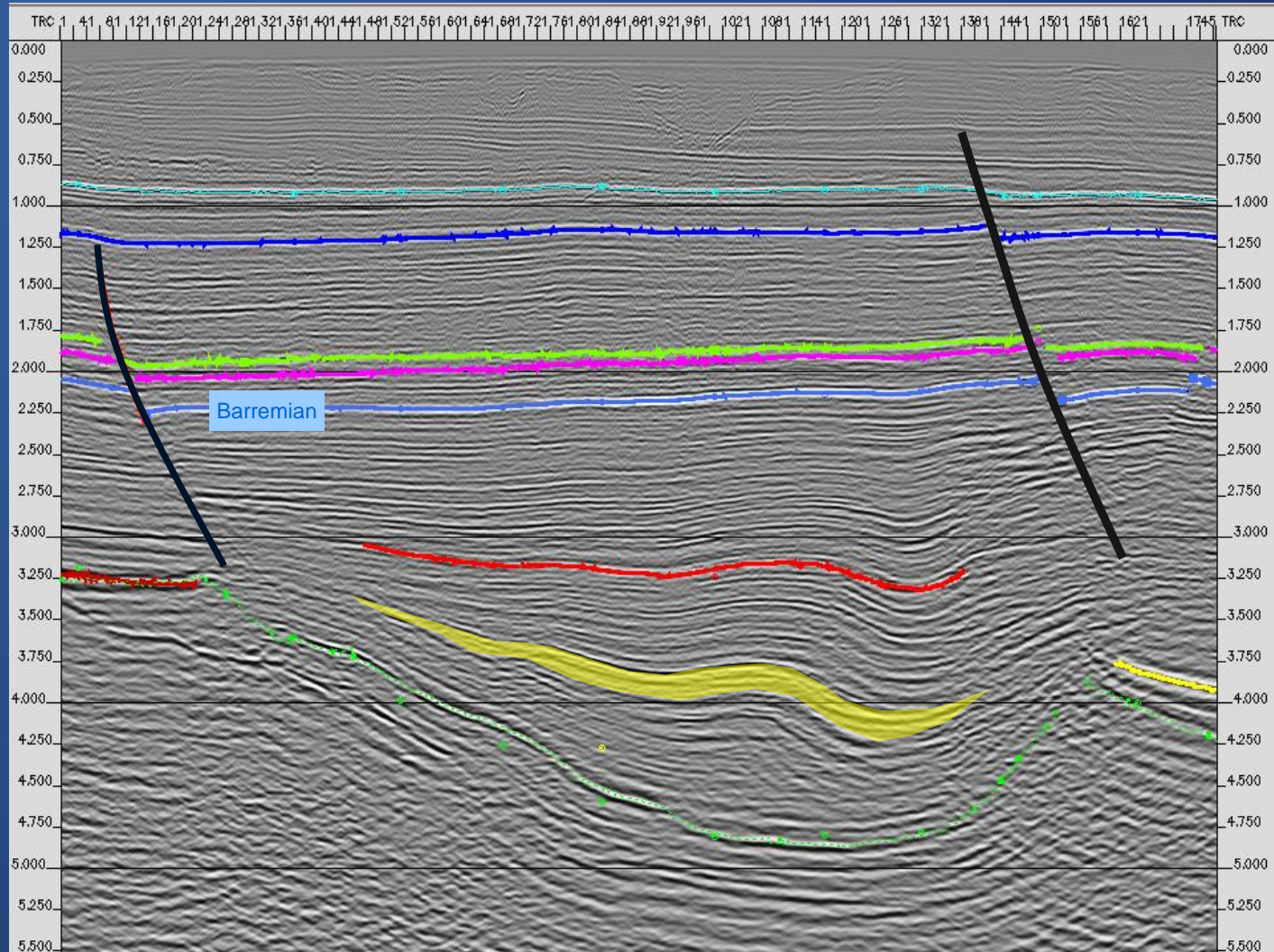
- Under explored, last well 1976
- Water depth 50 - 100m
- Defined “oil rim” *
- Oil shows in 3 wells

* OETRA 2011



Abenaki Sub Basin Prospect

- Turtle structure





Conclusions

- Shell awarded 4 blocks on western Scotian slope \$ 970 million
- 2 blocks received highest ever offshore eastern Canada
- 3 year rolling forecast areas for future call for bids.
 - Nominations considered on all available land
- NS12-1
 - Nominations close March 16, 2012
 - Call opens May,2012
 - Call closes November, 2012.
- Come see us at Booth