



EQUATORIAL GUINEA

EXPLORATION STATUS

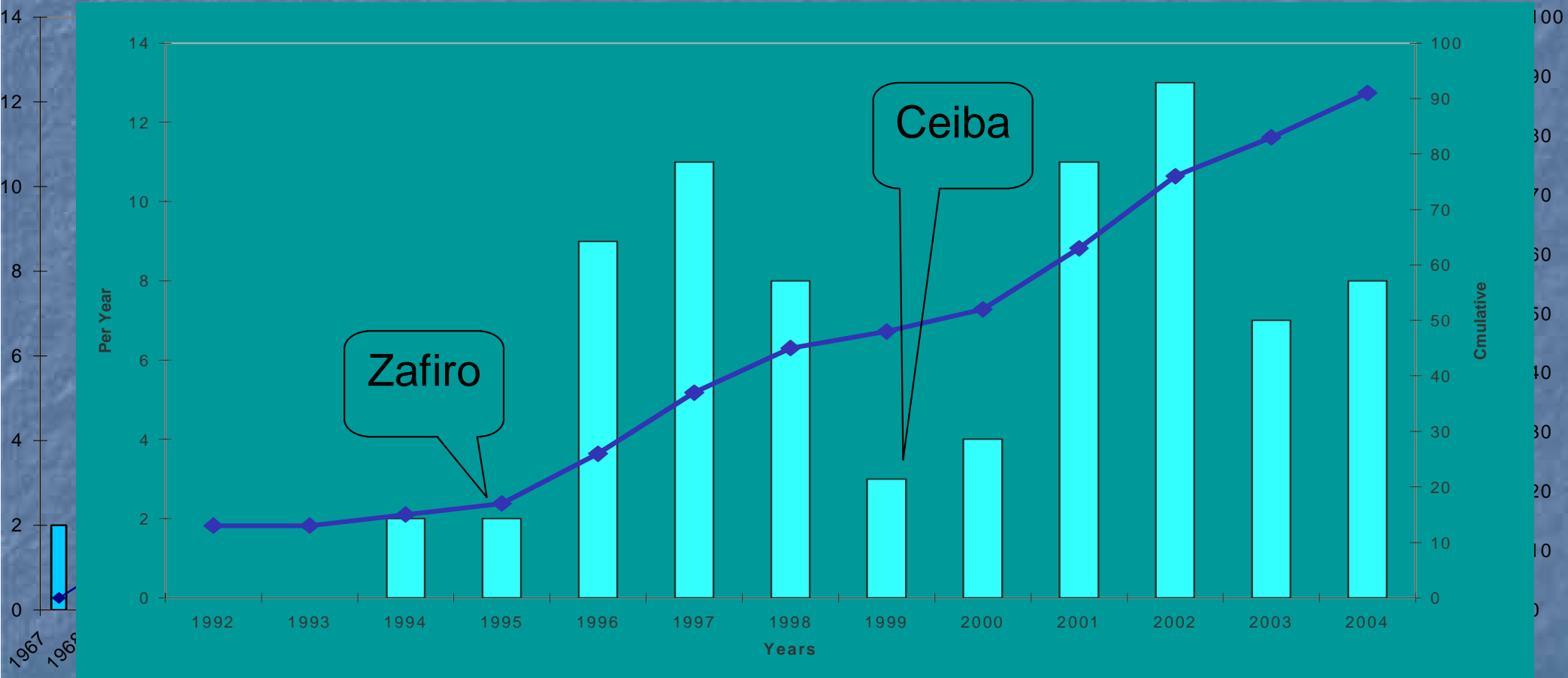
Alan Soulsby,

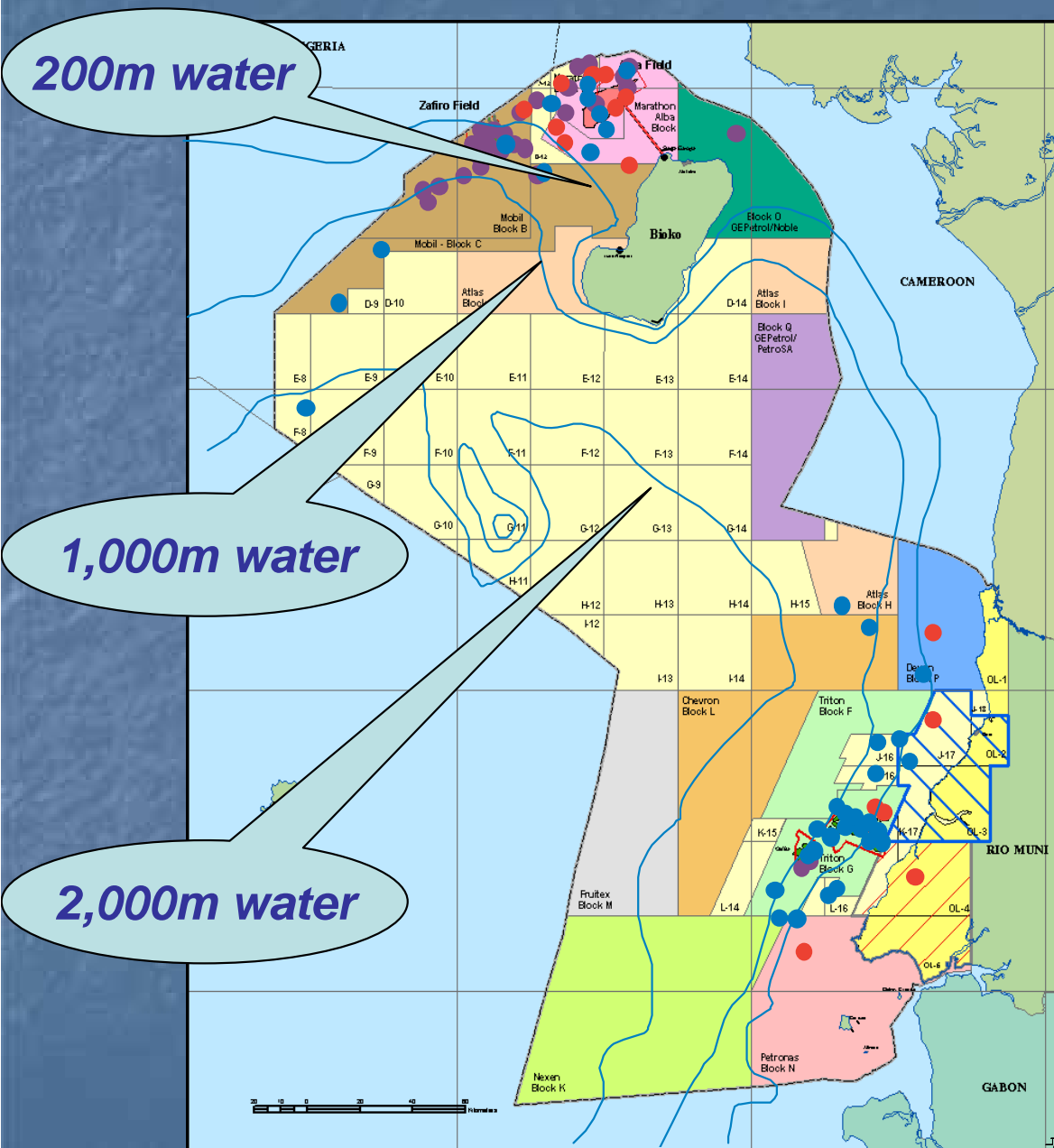
Director, ECL and Advisor to Ministry of Mines,
Industry & Energy

Kuala Lumpur, March 2005



EXPLORATION DRILLING HISTORY





WELLS DRILLED

TO 1992.....

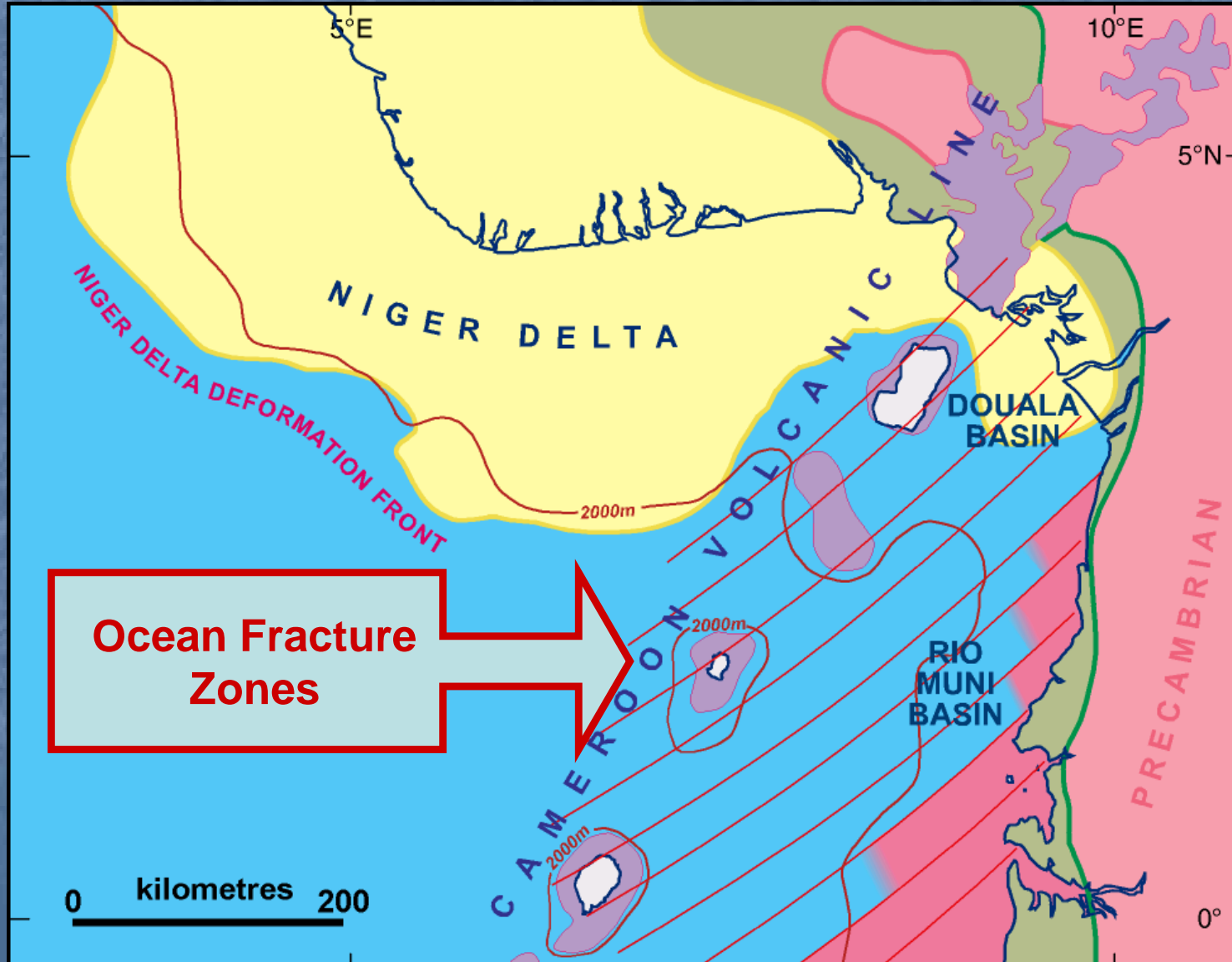
Drilling from 1967 within the 200m isobath found the Alba condensate discovery which was deemed non-commercial.
 13 wells in Niger Delta
 6 wells in Rio Muni

1992-99.....

Exploration on Zafiro trend to the 1,000m isobath (33 wells).
 Ceiba Field discovered 1999.

1999-2004.....

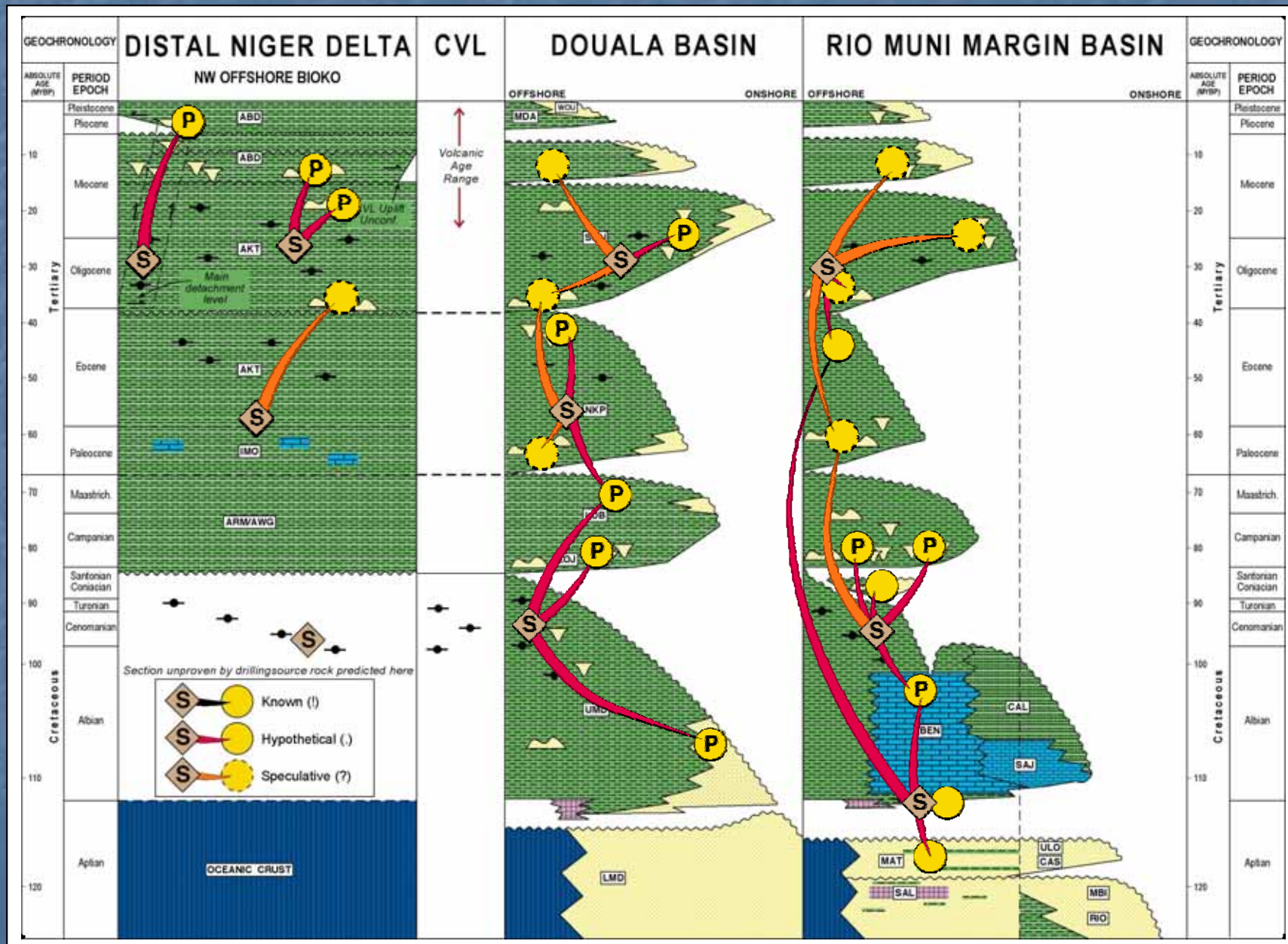
Exploration extended westwards along the Niger Delta Deformation Front (3 wells) beyond 2,000m isobath and around Alba (10 wells) but mostly along and inboard of the Ceiba Trend (31 wells)



Regional Structural & Basin Framework

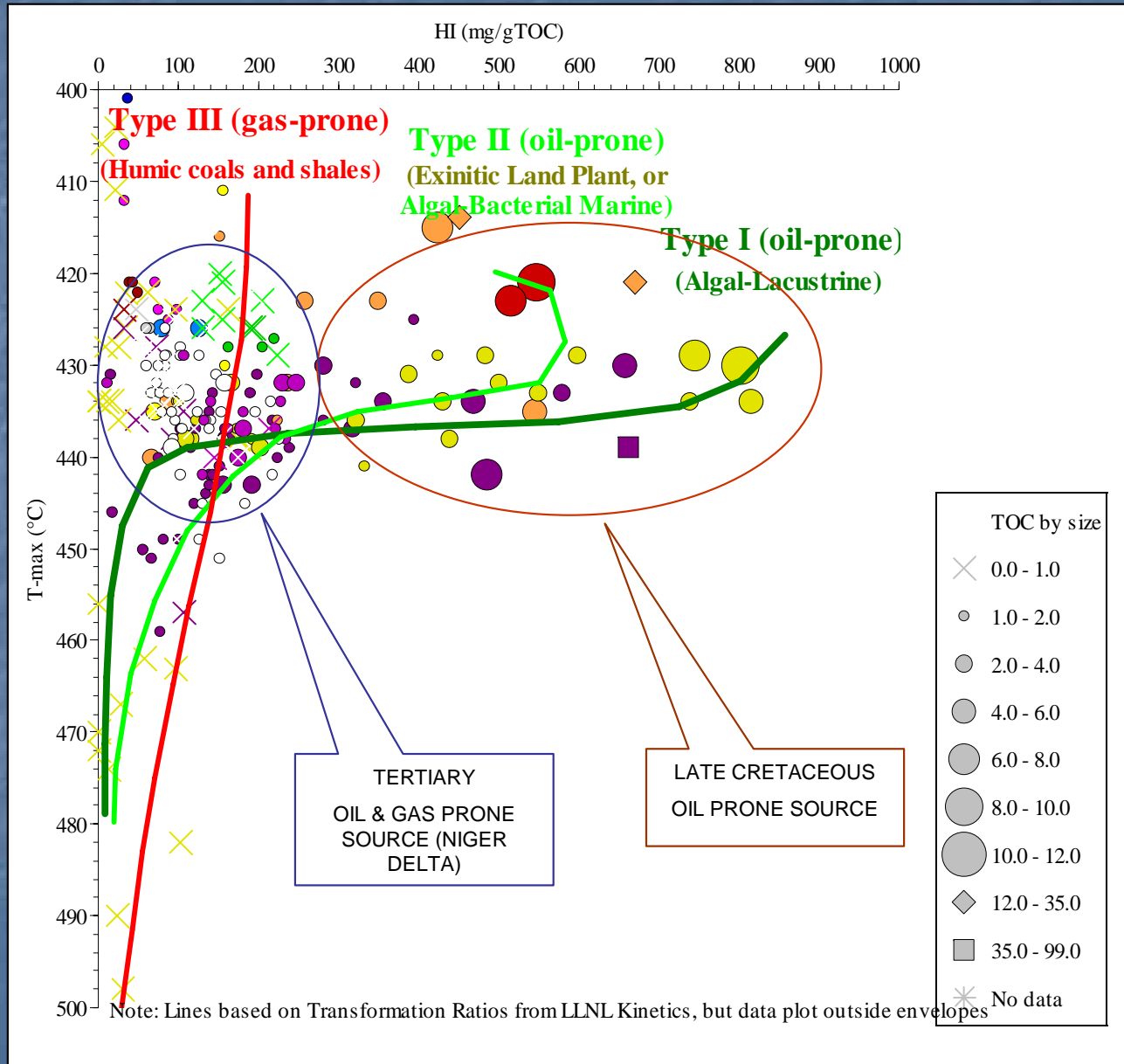


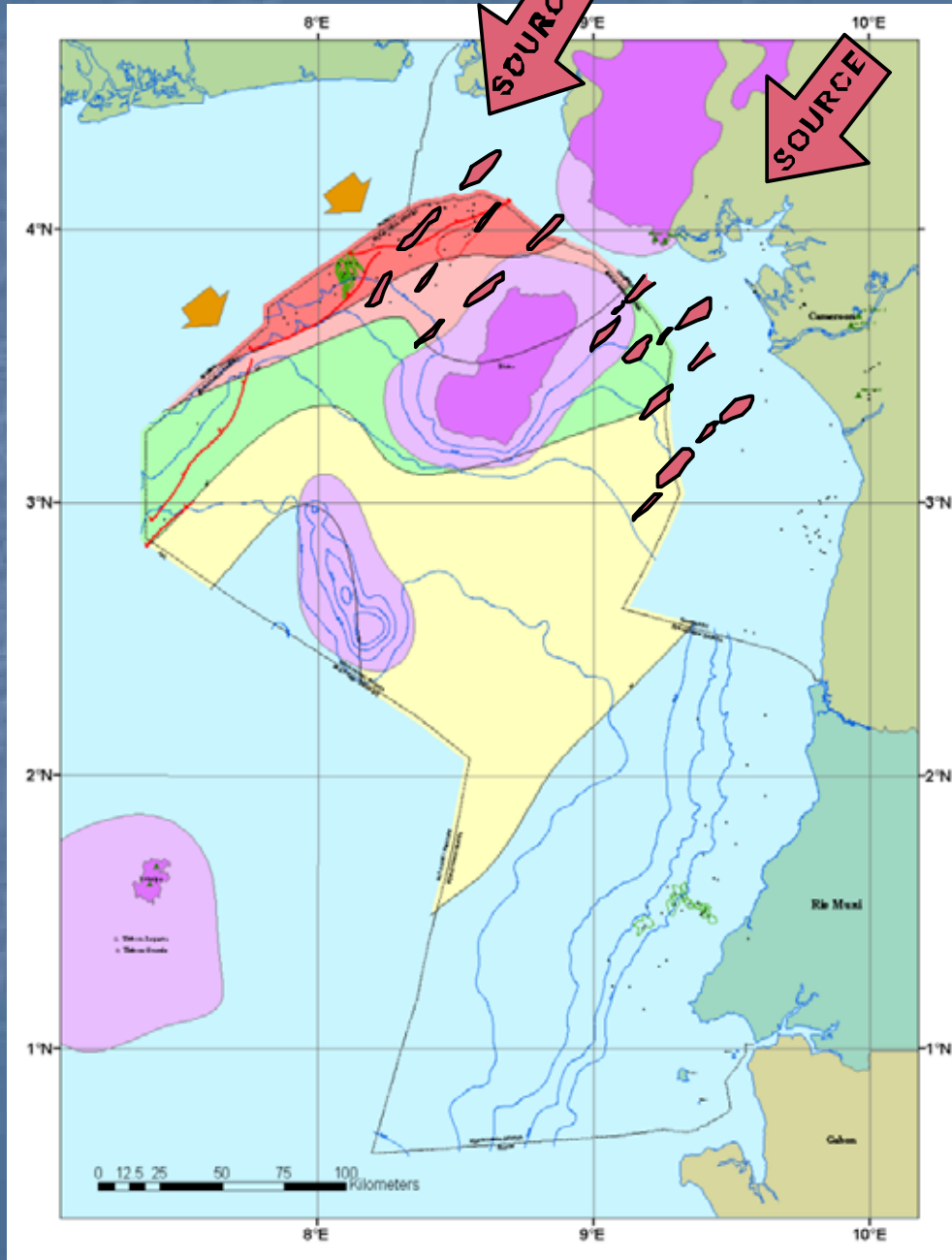
PETROLEUM SYSTEMS





SOURCE QUALITY





Late Tertiary Play

Oligo-Miocene source mature towards and under Niger Delta thrust front

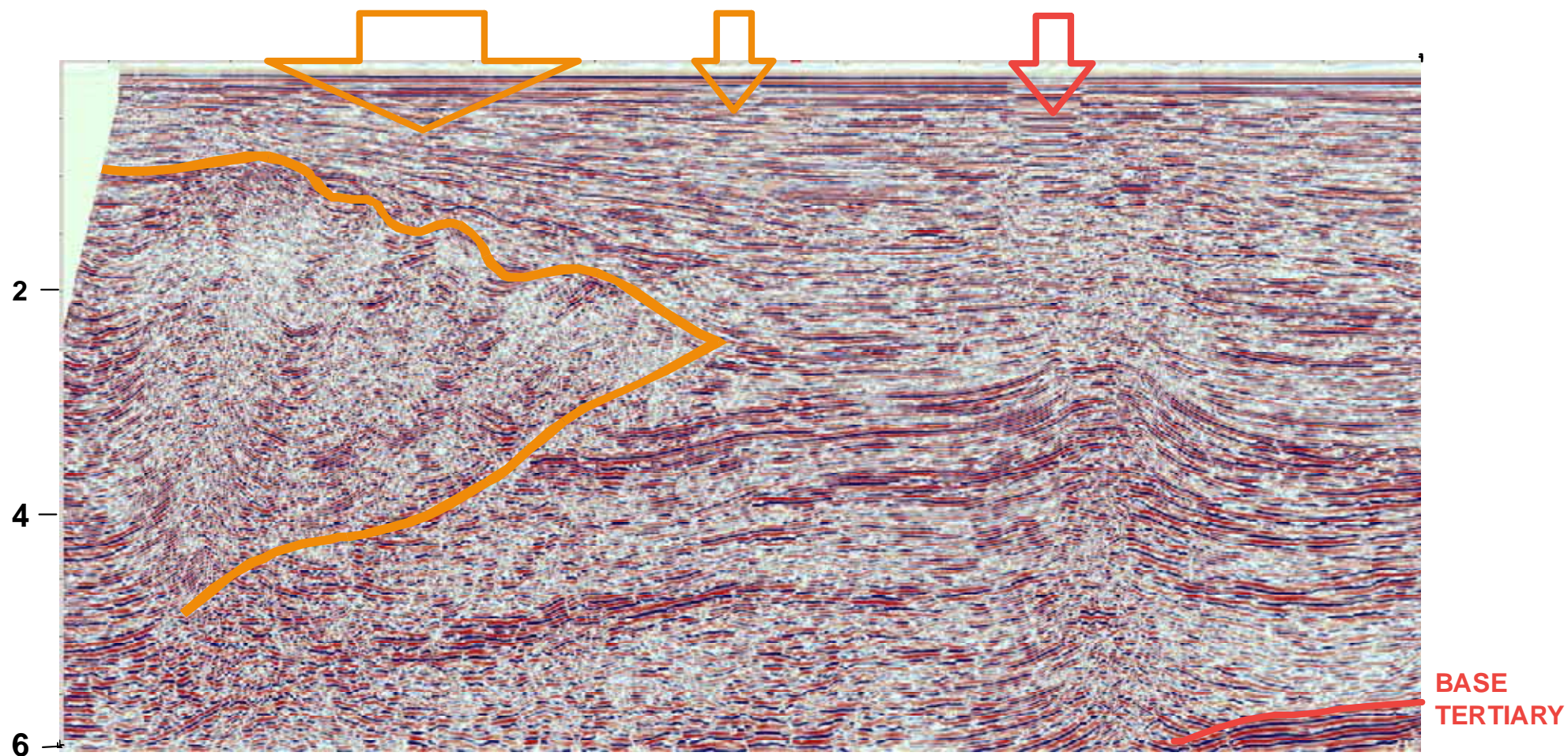
Miocene fan and channel sands provide excellent reservoirs, derived from north-east

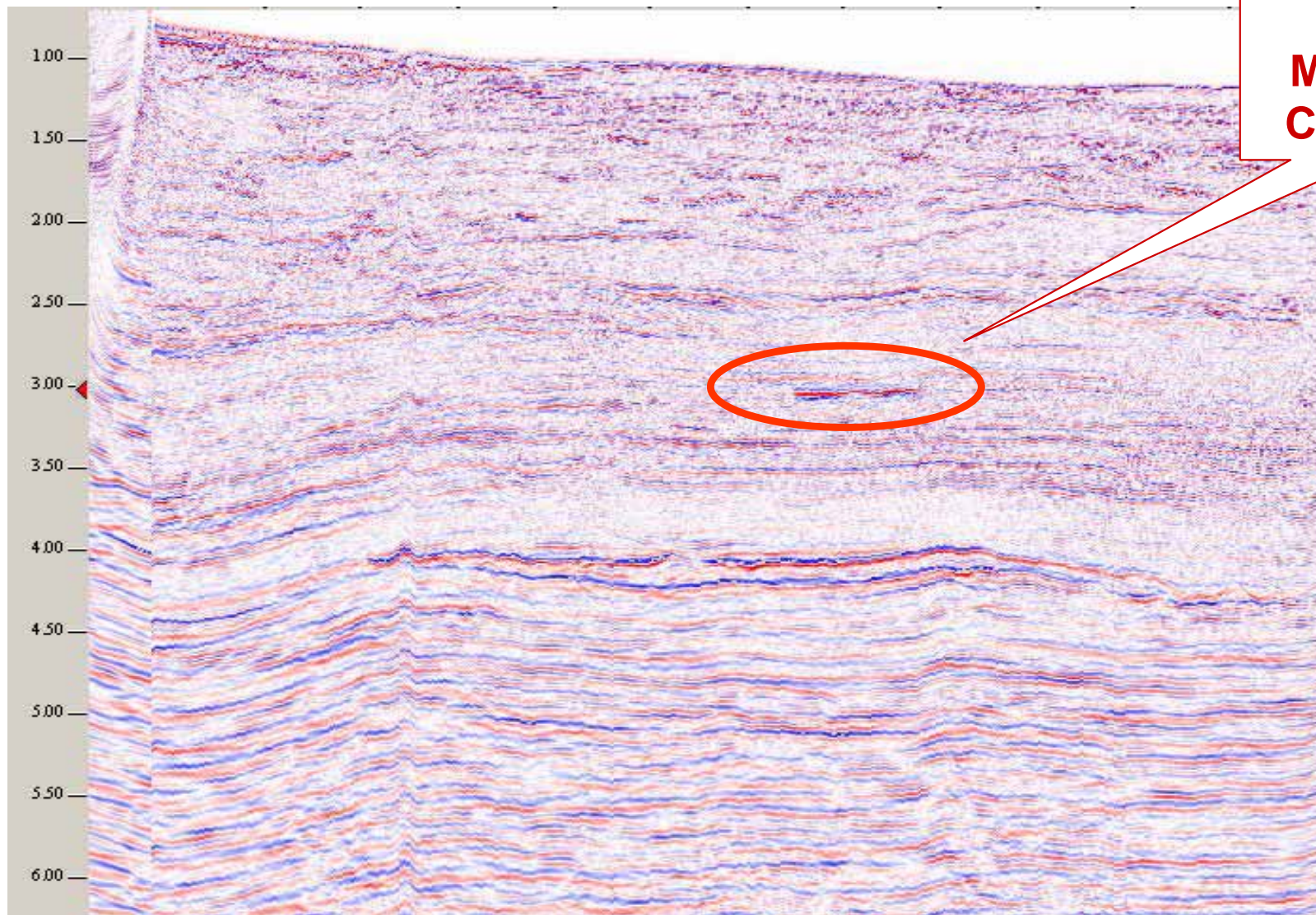
Pliocene canyon systems sourced from north and north-west

Around 2.5 billion boe discovered

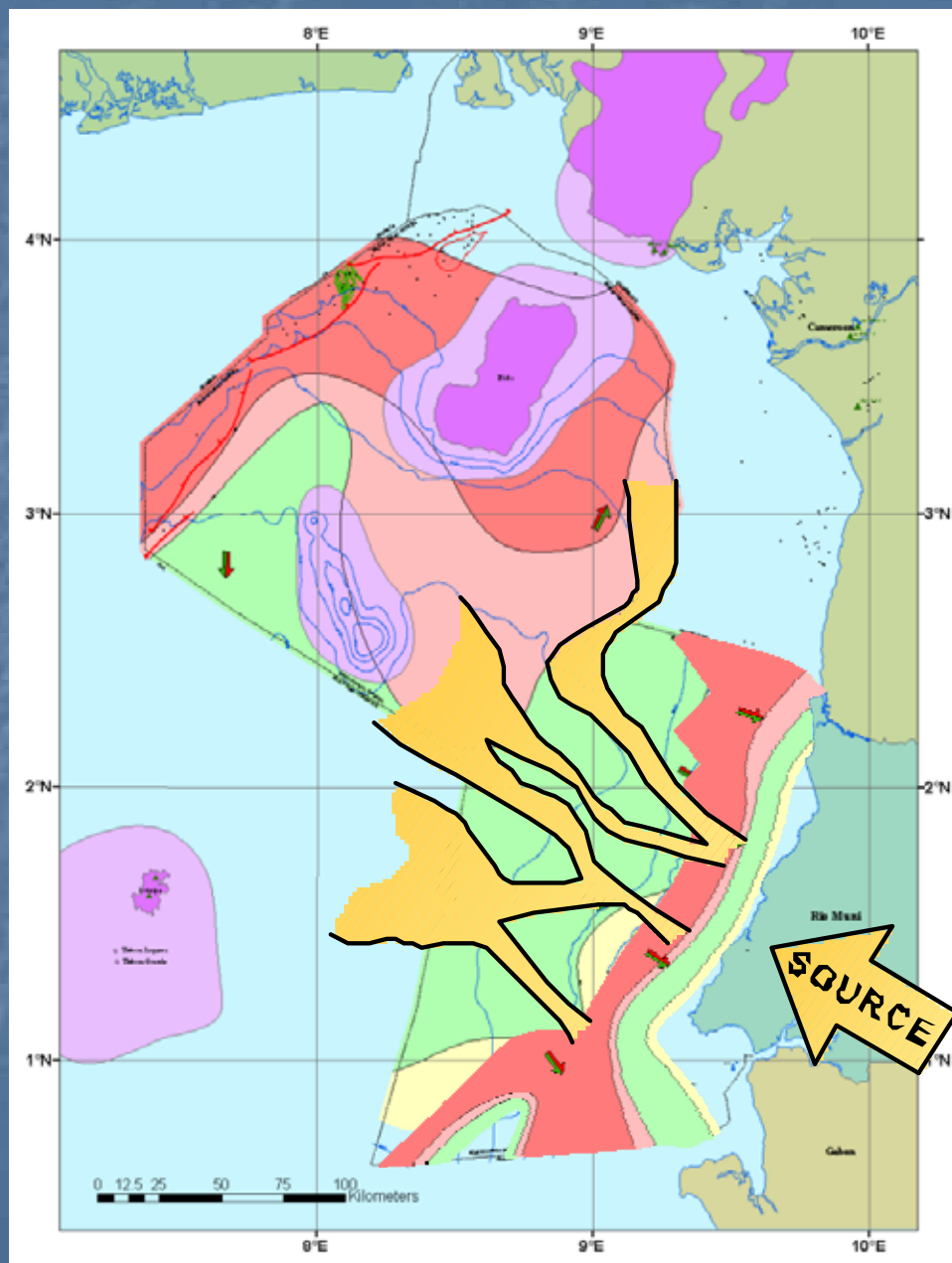
PLIOCENE
CHANNELSNIGER DELTA
FRONT

ALBA





Data courtesy of GESeis and Atlas Petroleum



Cretaceous Play

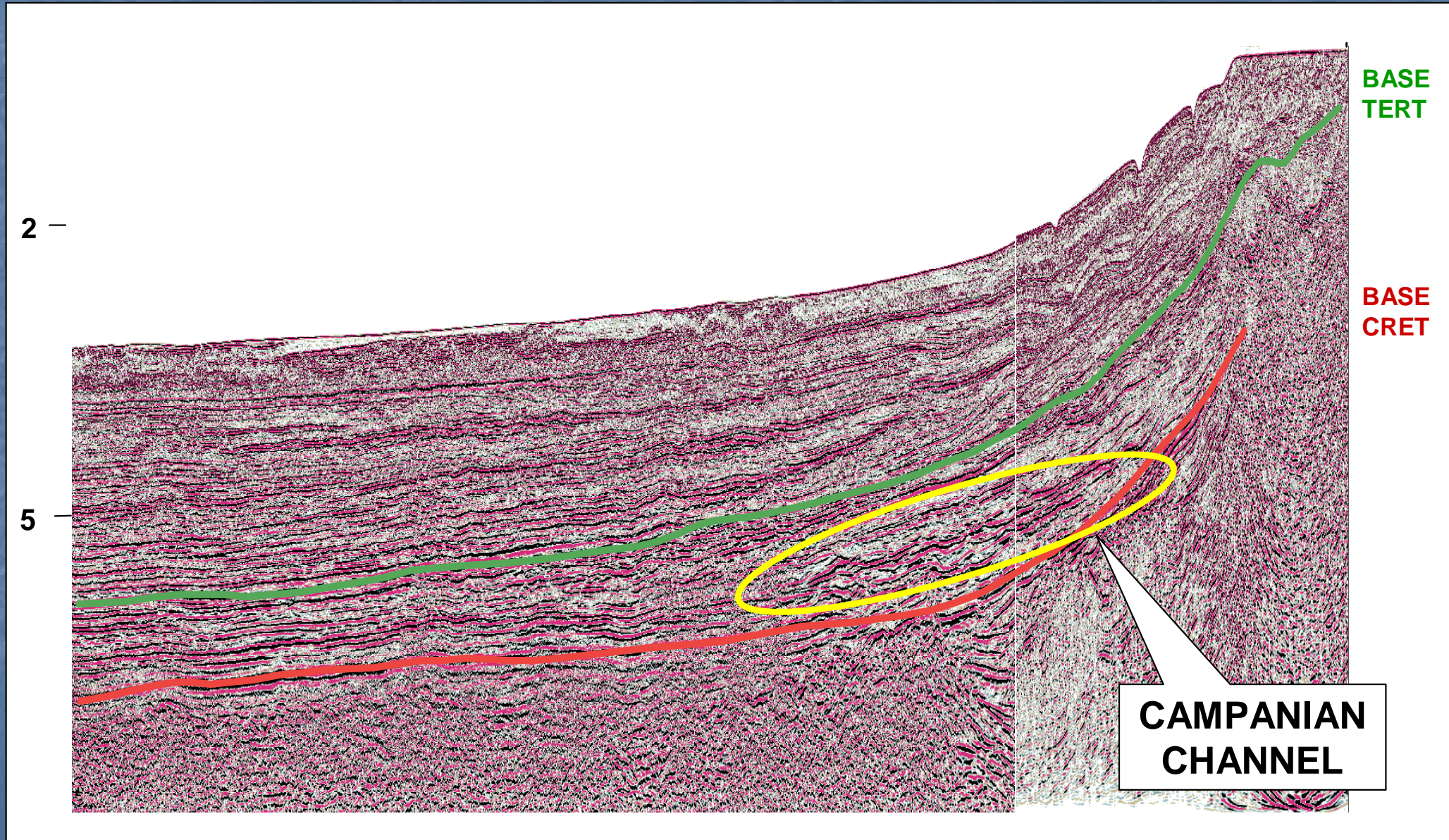
Apto-Turonian source mature in basinal areas

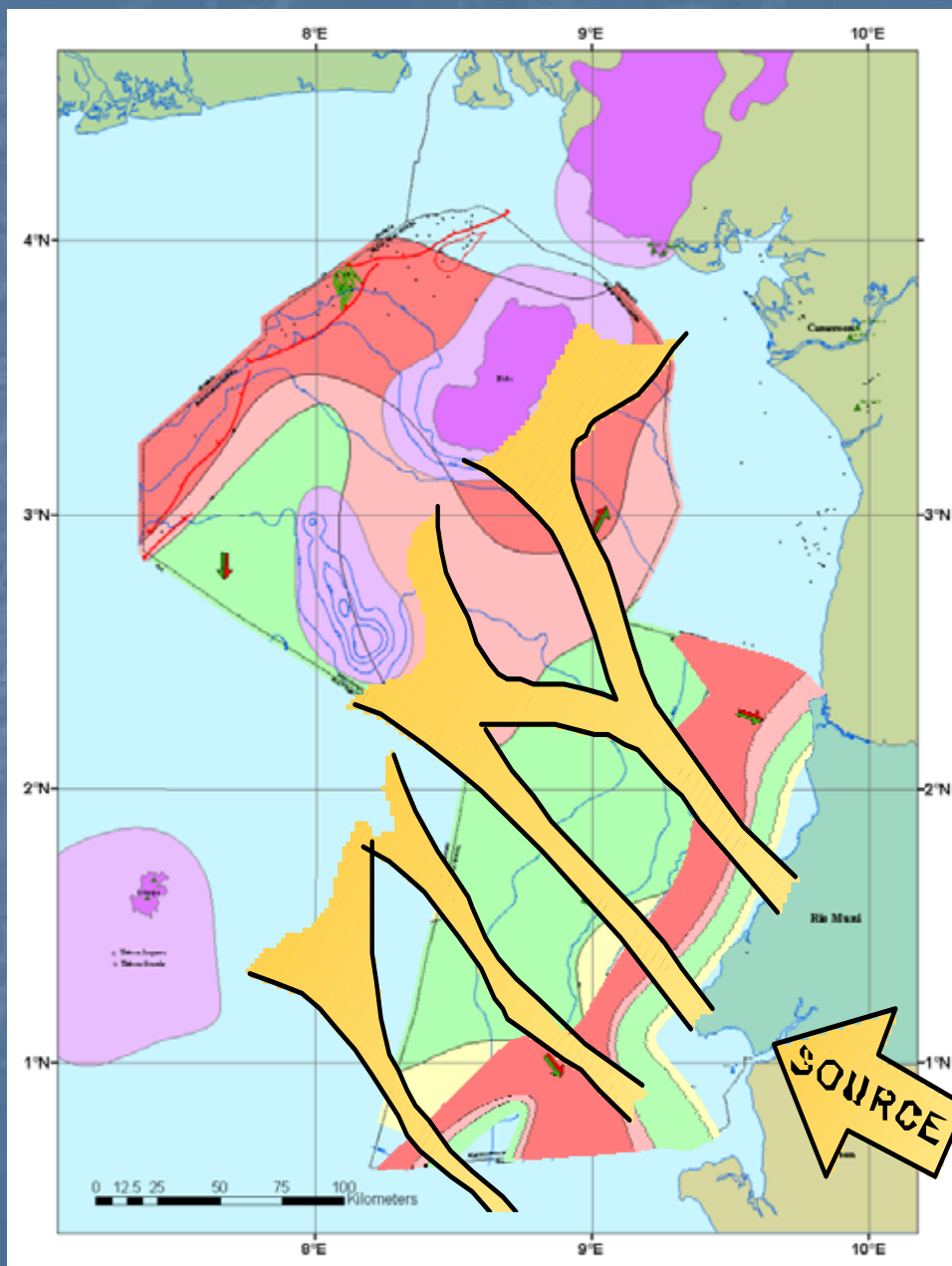
Albo Aptian source mature in marginal areas

Campanian fan and channel sounds provide excellent reservoirs

Exploration to date only in upper channel systems – PROVEN OIL
~ 500mmbbls

Lower channel and fan systems
– HUGE POTENTIAL





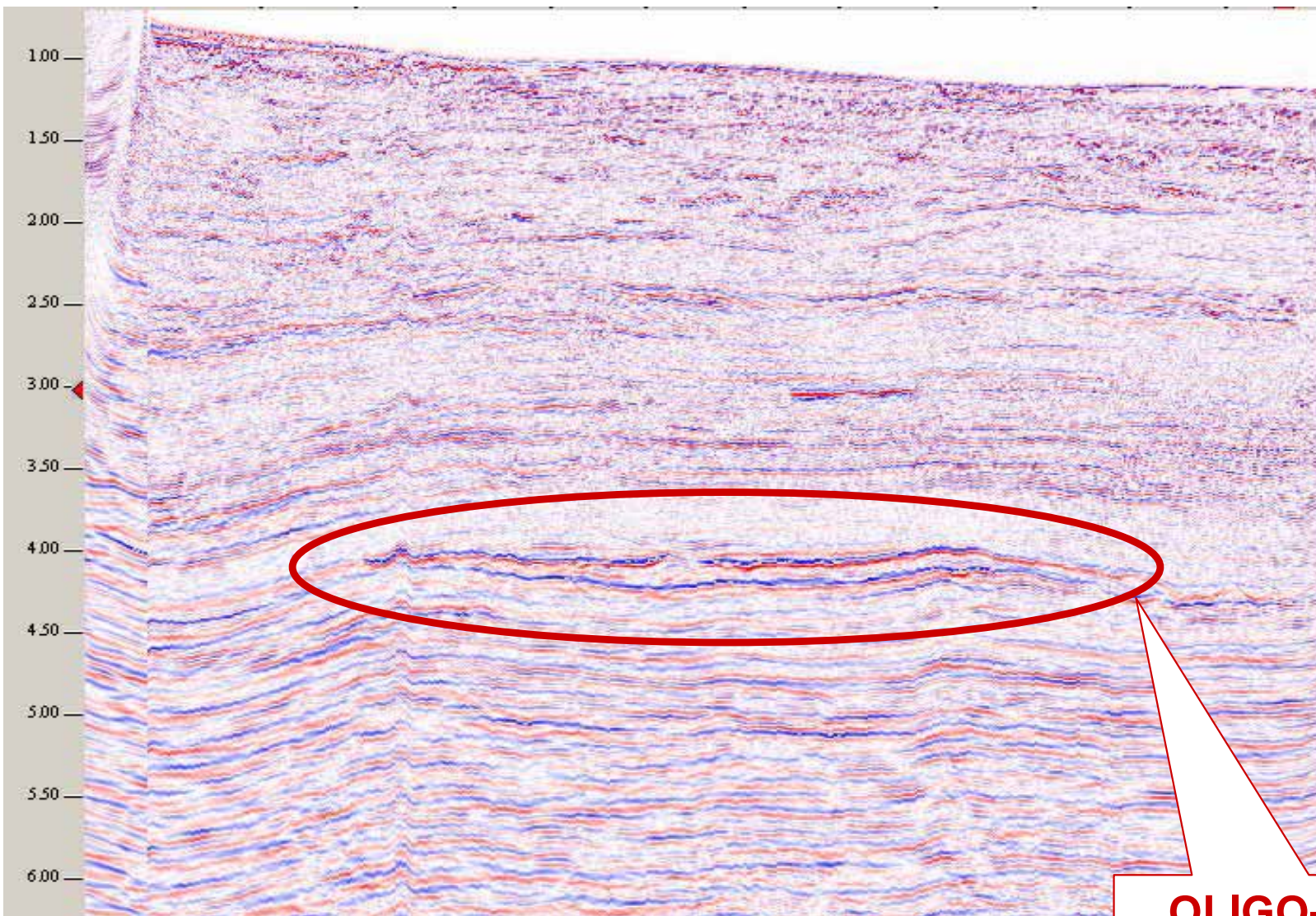
Early Tertiary Play

Proven play in Cameroon (Coco Marine)

Apto-Turonian source mature in basinal areas

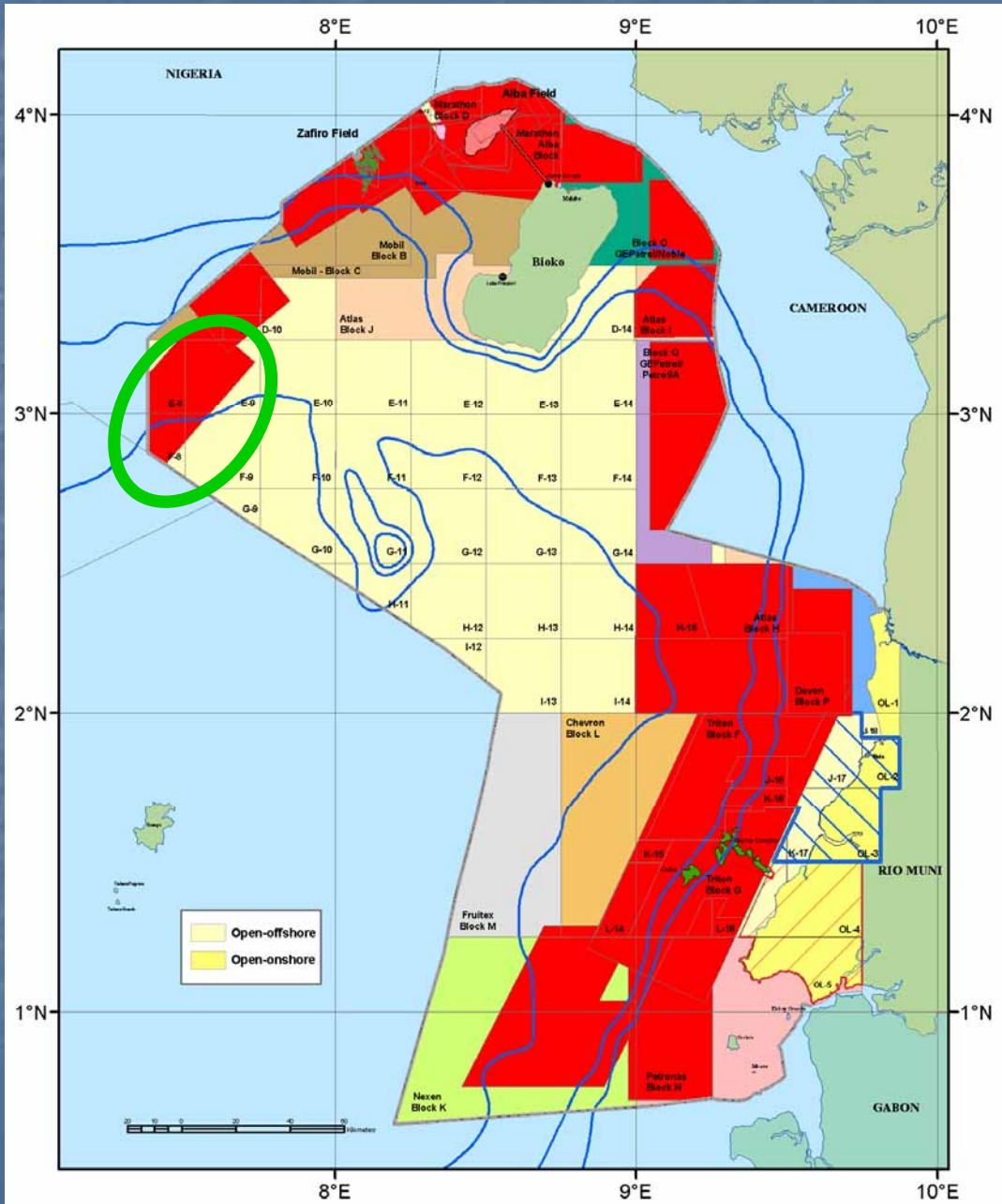
Late Eocene fan and channel sounds well imaged seismically

Deepwater play, untested in EG



Data courtesy of GESeis and Atlas Petroleum

**OLIGO-MIOCENE
FAN?**



3D SEISMIC COVERAGE

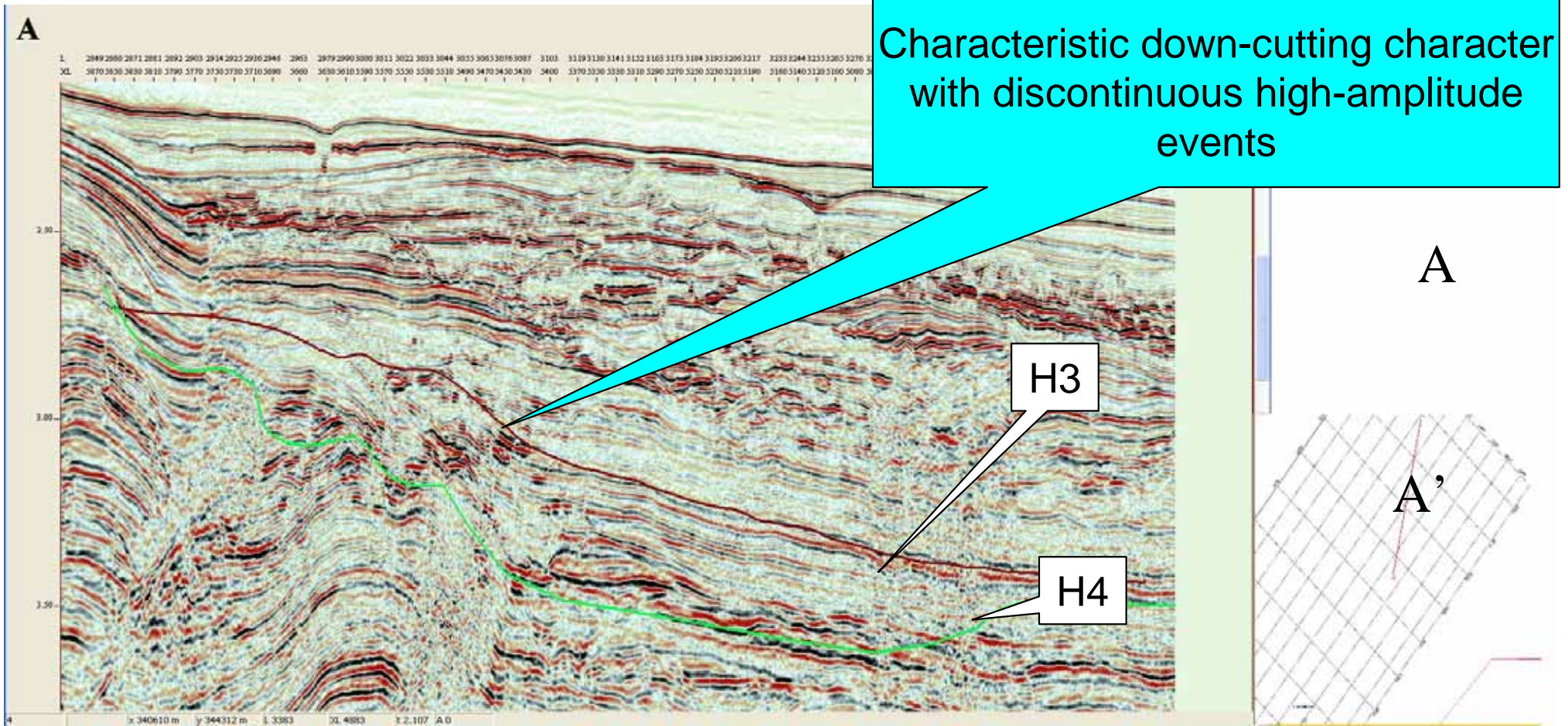
All areas coloured RED now covered by 3D seismic, around 20,000sq. kms..

The State acquires 3D seismic on unlicensed areas through GESeis, its JV seismic contractor.

GESeis promoting SBL surveys in deep water areas to reduce exploration risk.



Seismic line down Channel Feature





BLOCKS E-8/E-9/F-8/F-9 (Former Block E)

DATA PACKAGE

- **Good quality recent vintage 3D seismic data**
- **SBL data suggests hydrocarbon bearing prospects**
- **Prospects ready to drill**
- **Time to first oil reduced**
- **Large element of work commitment covered**
- **Licence fee cost recoverable under PSC**



2005 RELINQUISHMENTS

DATA AVAILABLE

- **Historical seismic, various vintages**
- **Well data packages**
- **Basin studies and evaluation reports:**
 - **2005 Equatorial Guinea Seismic Mapping & Play Fairway mapping project**
 - **2001 Rio Muni Basin Study**
 - **1998 Rio Muni Petroleum Potential**



Exploration Issues.....

- **Immature exploration province**
- **Large sediment volume**
- **Proven & mature source rocks – large volumes generated – low source risk**
- **Excellent channel and fan sands - low reservoir risk**
- **Many stratigraphic trap opportunities, some structural**
- **Large unlicensed area, extensive database**

.....LARGE REMAINING POTENTIAL