

LEBANON FIRST OFFSHORE LICENSING ROUND



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Regional Geology of the Eastern Mediterranean



Lebanon First License Round - Summary



- **Lebanon is working towards its First License Round**
- **The seismic data and recent discoveries in the region show the area to be very prospective**
- **An update on the timing of the license round and appointments to the Petroleum Administration are expected towards the end of March 2012.**
- **Information and booking to visit the data room should be made via:**

[info@:www.lebanon-exploration.co](mailto:info@www.lebanon-exploration.co)

www.lebanon-exploration.com

Lebanon – Key facts

The Lebanese Petroleum Law is available

- Download from www.lebanon-exploration.com

By Law Companies will need to pre-qualify

By Law a Minimum of 3 Companies required in each Group

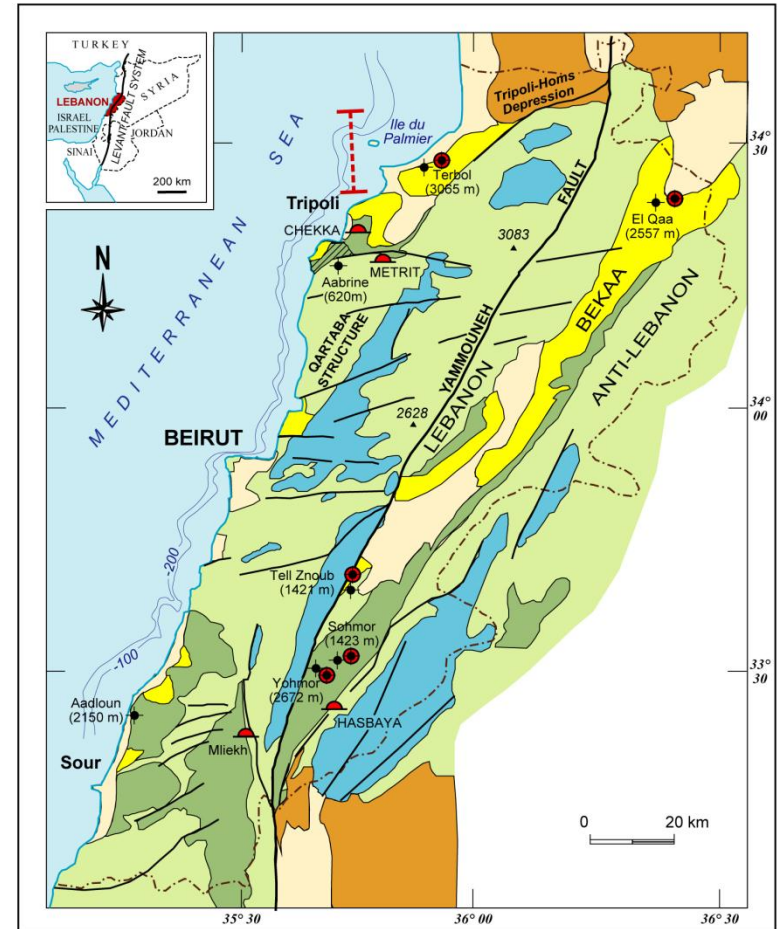
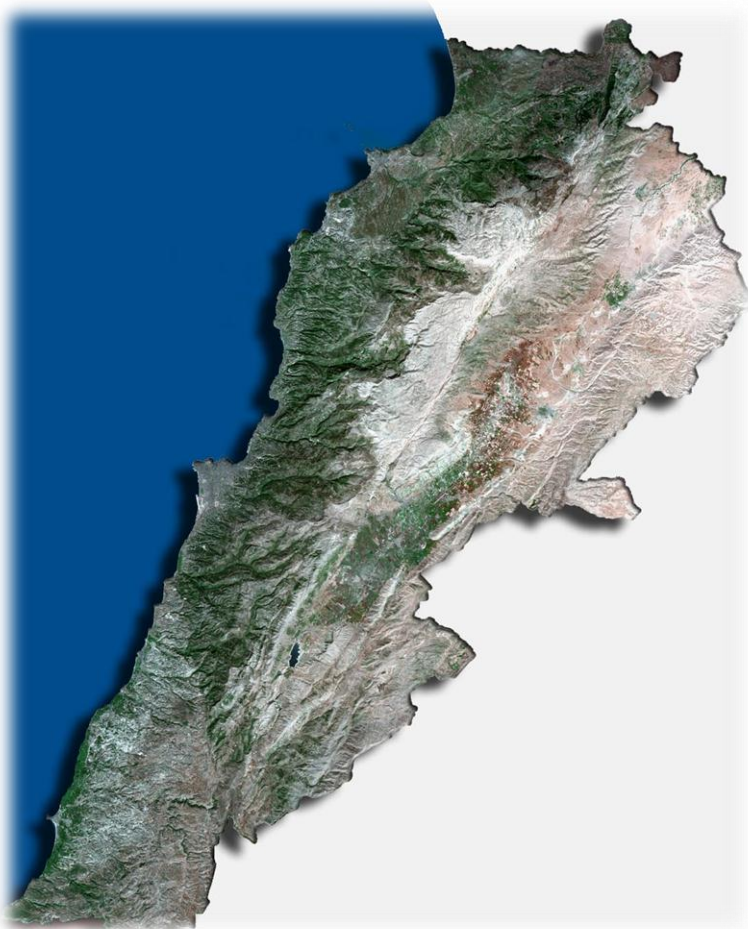
Three Types of License

- Reconnaissance – 3 years
- Exploration – 10 years
- Production – 30 years

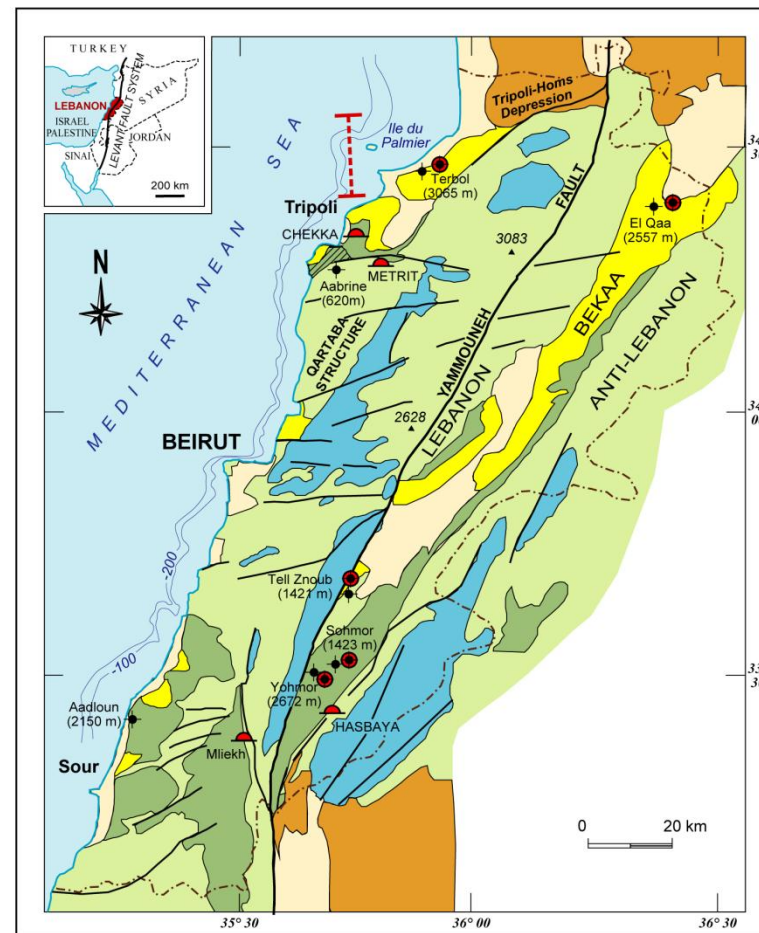
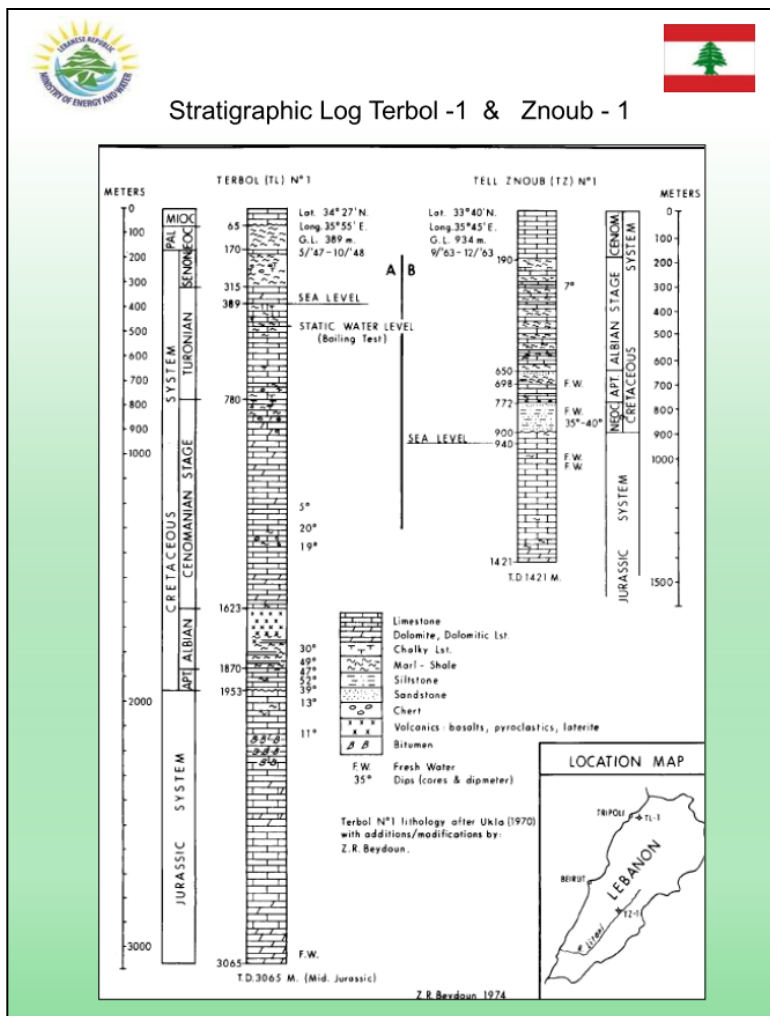
Exploration License Relinquishment

- 50% at the end of each period

Previous Onshore Exploration Work & HC Shows



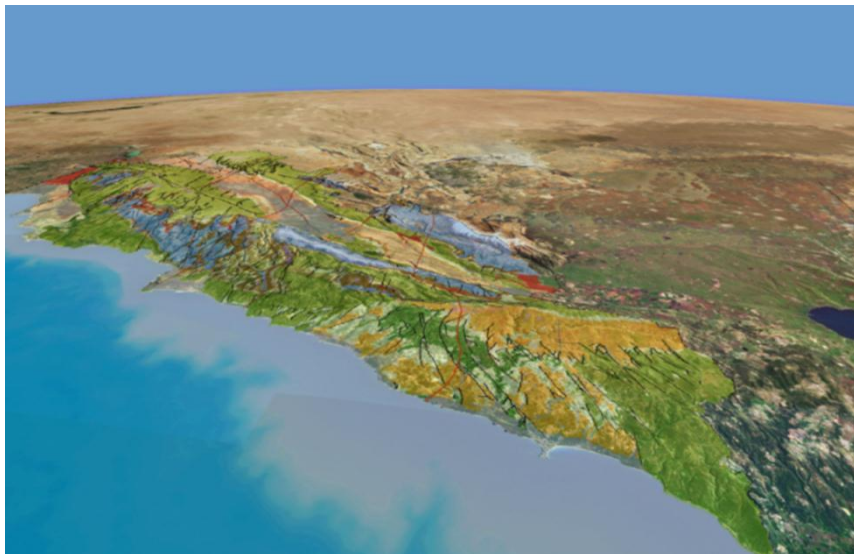
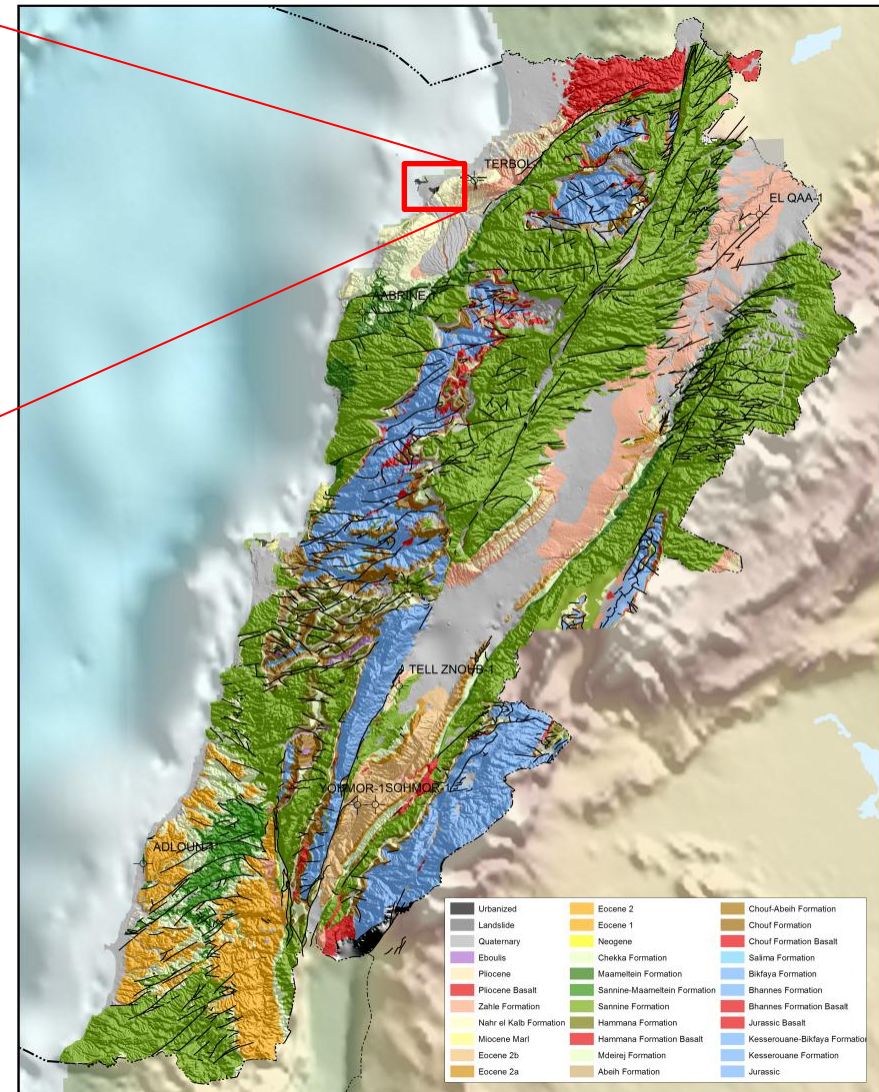
Previous Onshore Exploration Work & HC Shows



Wells				
x	y	name	Operator	Spud_Date
35.916667	34.45	TERBOL-1	Iraq Petroleum Company	May 1947
35.666667	33.483333	YOHMOR-1	Compagnie Libanaise Despetroles (CLP)	February 1953
35.7	33.483333	SOHMOR-1	Compagnie Libanaise Despetroles (CLP)	June, 1963
35.75	33.666667	TELL ZNOUB-1	Compagnie Libanaise Despetroles (CLP)	September 1963
36.45	34.383333	EL QAA-1	Compagnie Libanaise Despetroles (CLP)	July 1960
35.266667	33.4	ADLOUN-1	Compagnie Libanaise Despetroles (CLP)	November 1960
35.7	34.25	AABRINE-1	Shaheen Petroleum Exploration Compan	February 1966

7 (unsuccessful) Exploration Wells (1947-1967)

GIS Database – Digital Terrain & Surface Geology



New Fieldwork Onshore - Source Rocks ?

TOC=8-19%; Tmax= 400°C
HI= 450-630 (RockEval)



TOC=22%; Tmax= 425°C
HI= 825 (RockEval)

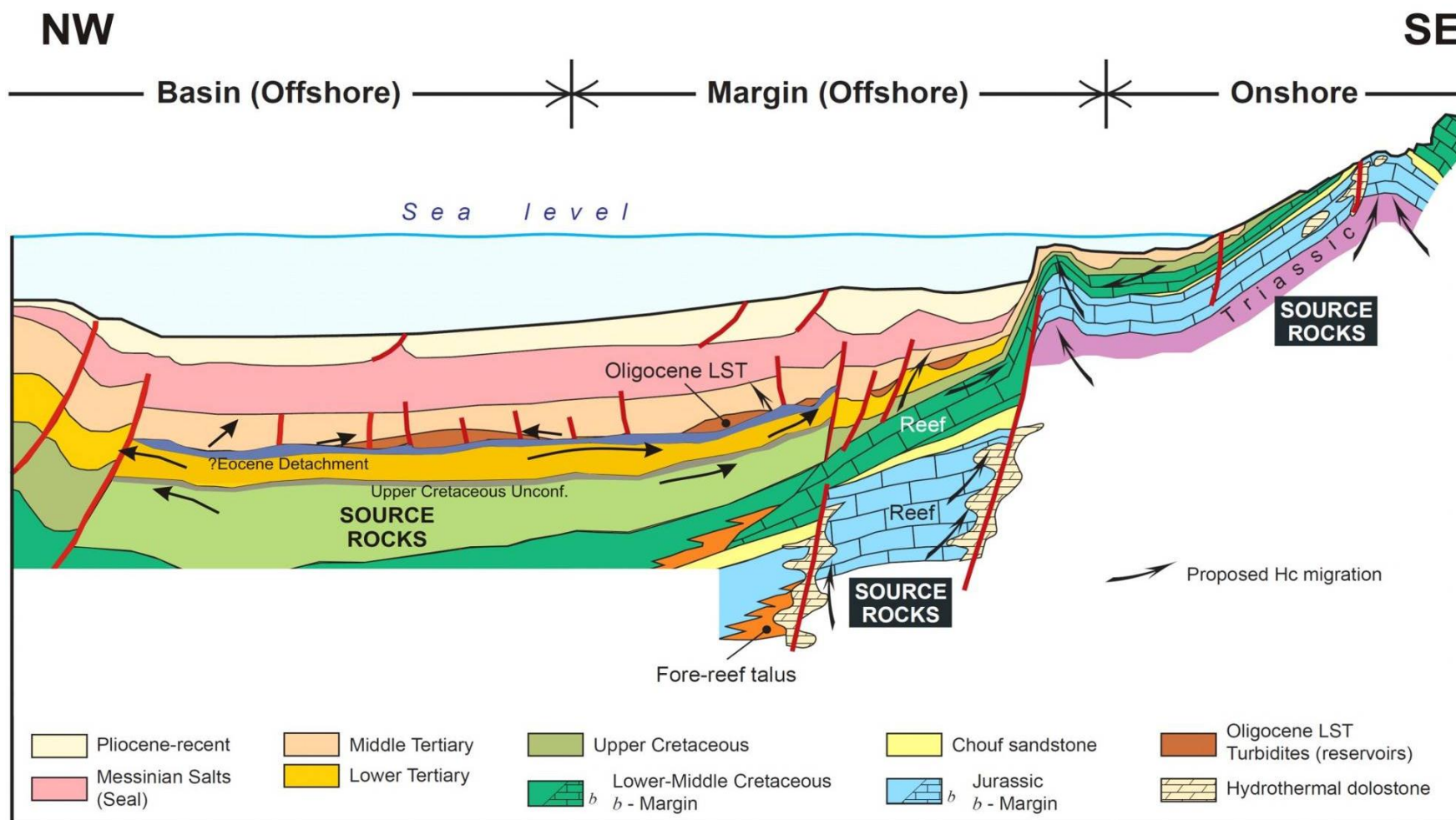


TWO types of asphalts (Al Haddad, 2007):

1. **Asphalt I:** in situ maturation of organic matter, forming immature Kerogen type II, in the rock matrix (i.e. from the Chekka Formation source rocks)
2. **Asphalt II:** is fracture-related and attributed to a deeper, thermogenic source

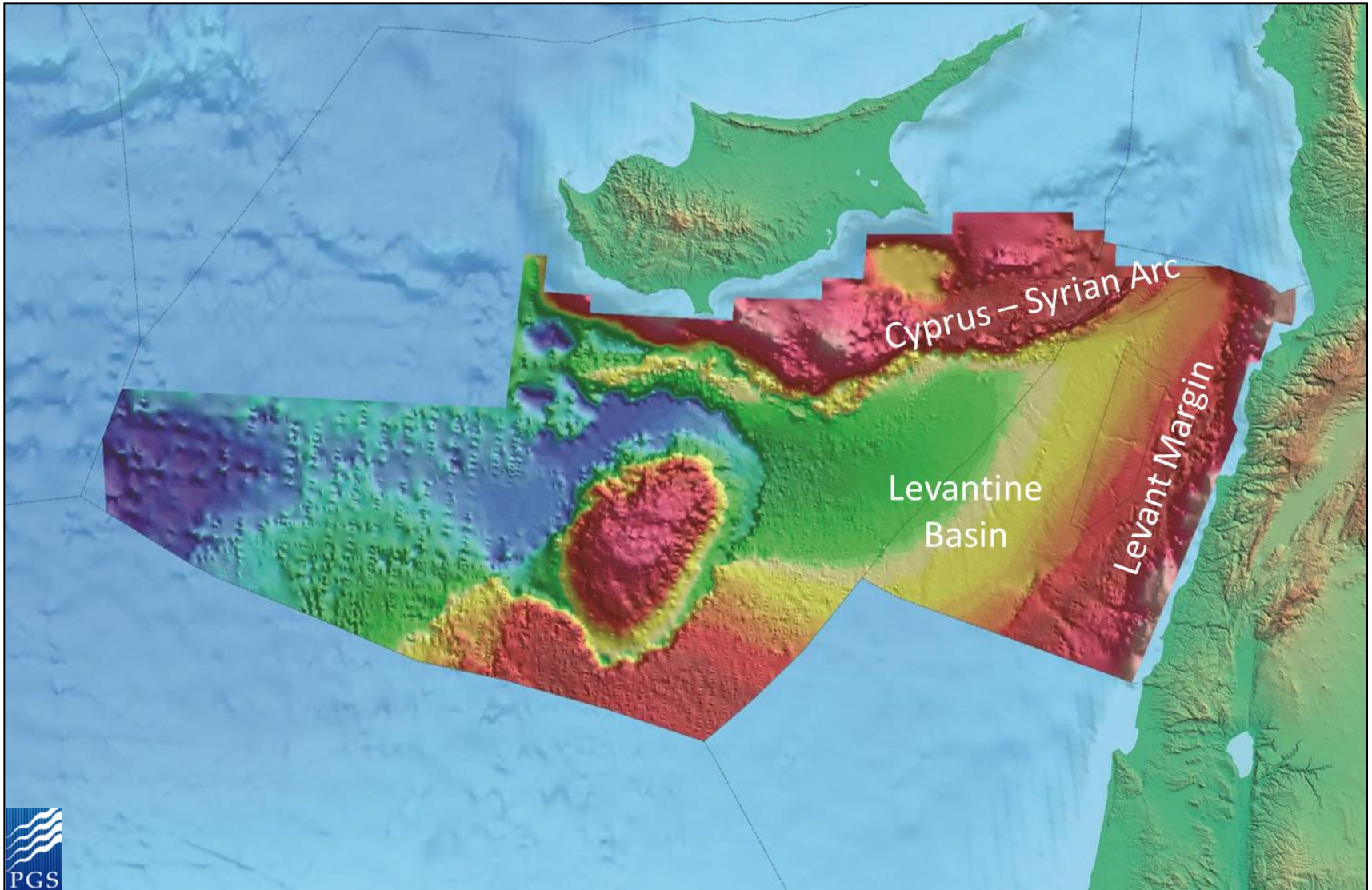
Conceptual Model – Link Offshore to Onshore

Nader, 2011/12



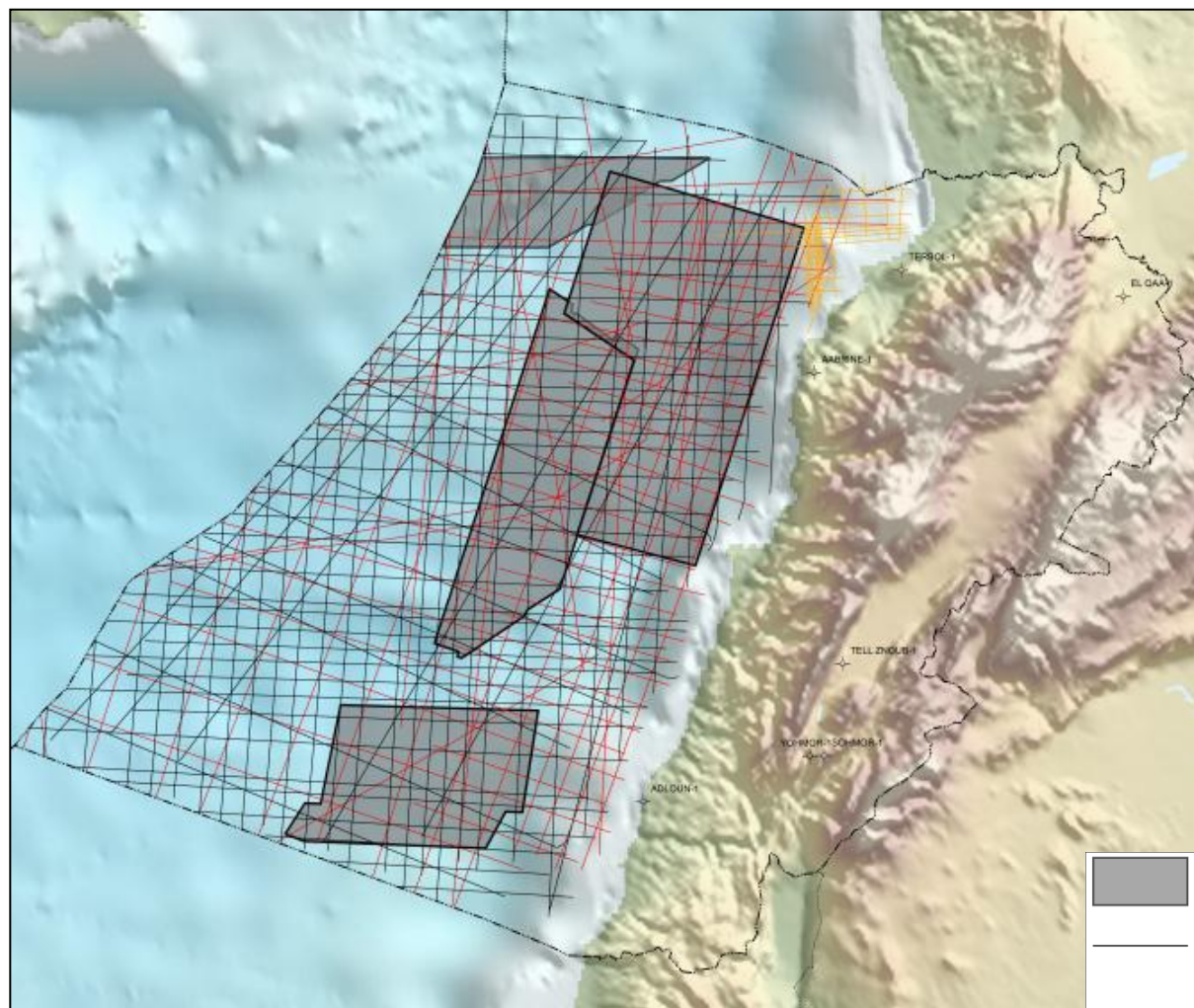
Regional Water Depth Map

(from seismic)



Lebanon- Seismic Database

(Updated February 2012)



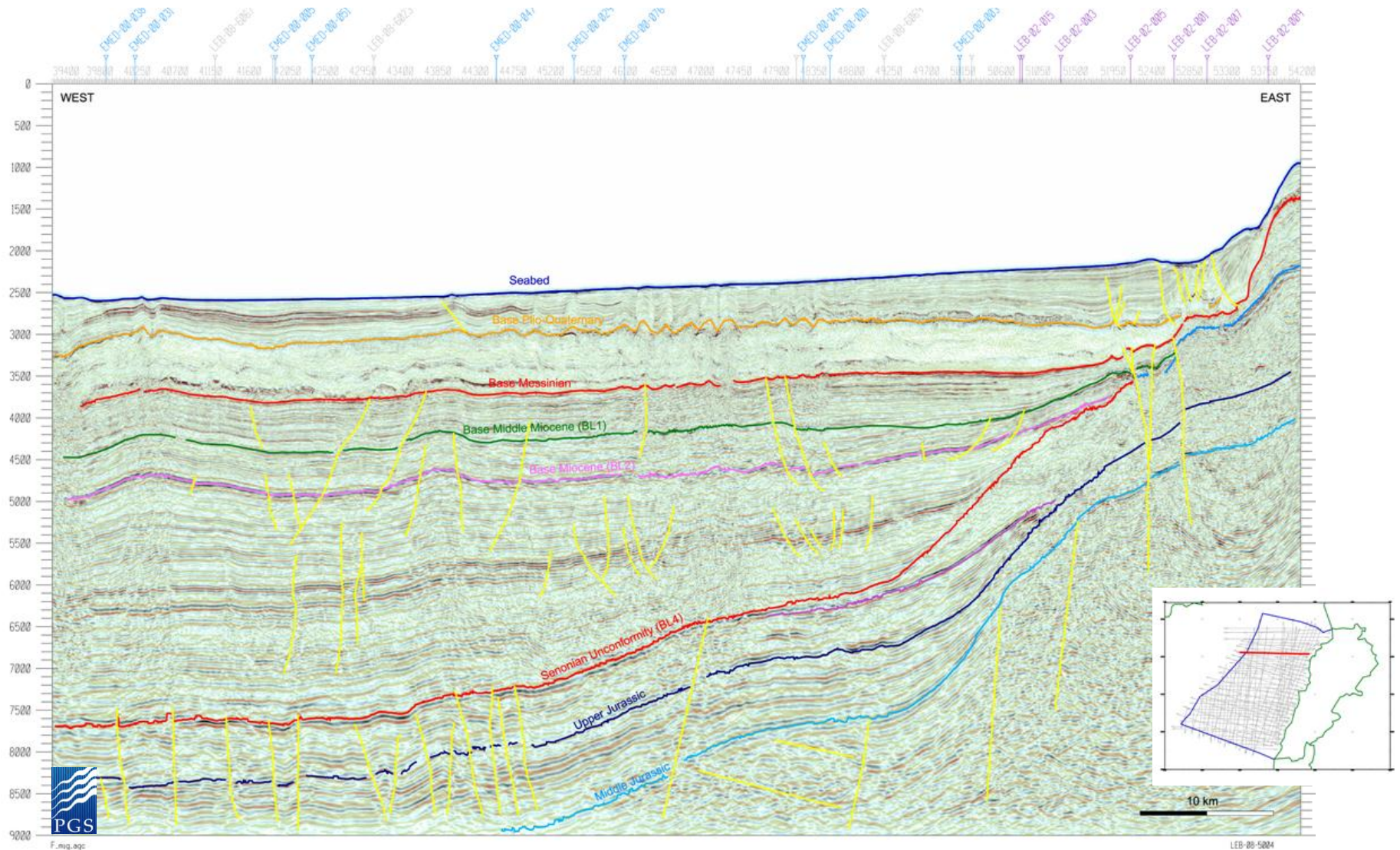
Seismic Database

- 6,000 km 3D
- 14,000 km of 2D

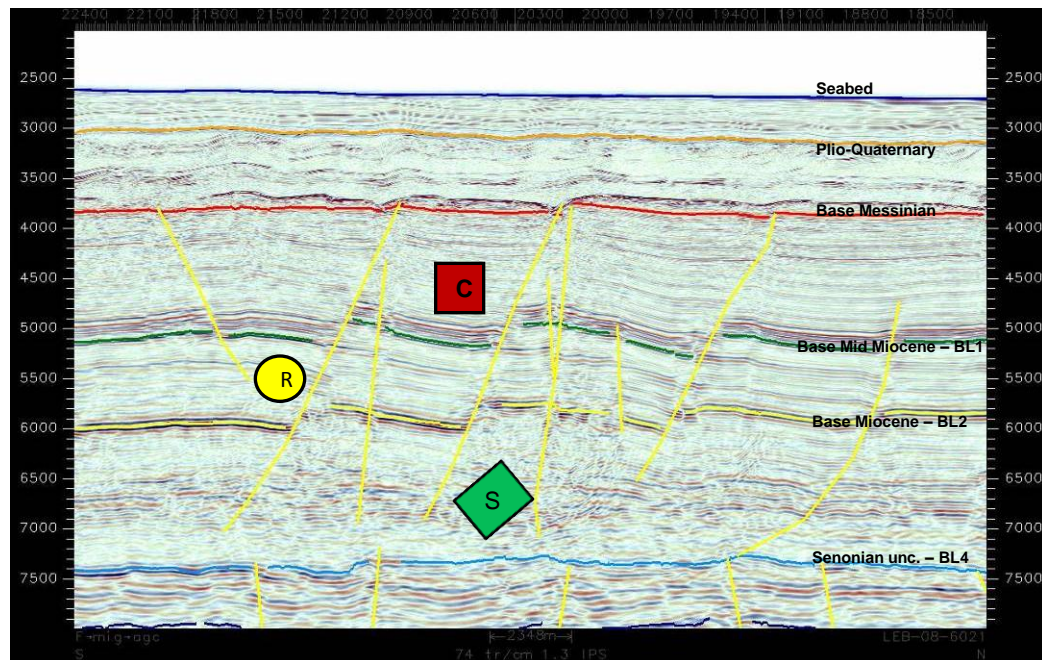


- 3D Acquired by PGS
- 2D Acquired by PGS
- 2D Acquired by Prakla
- 2D Acquired by Spectrum

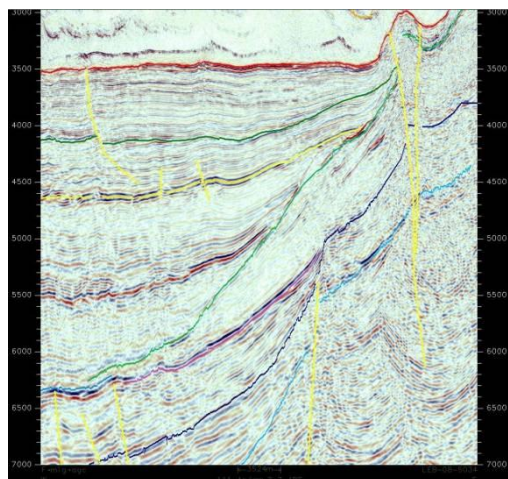
West – East Seismic Line



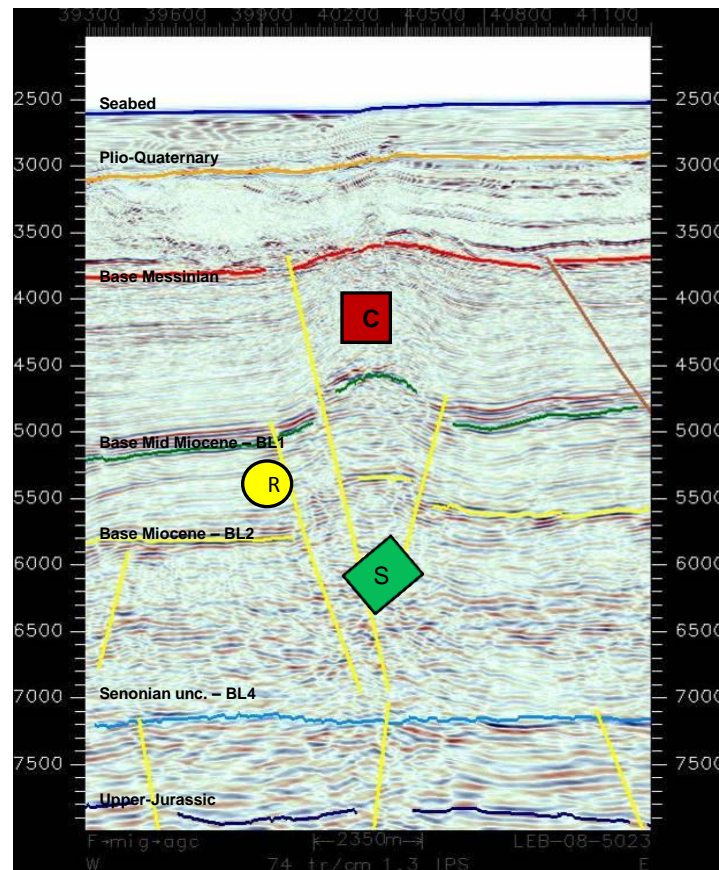
Diversity of Plays and Leads



"Piano Keys faults"

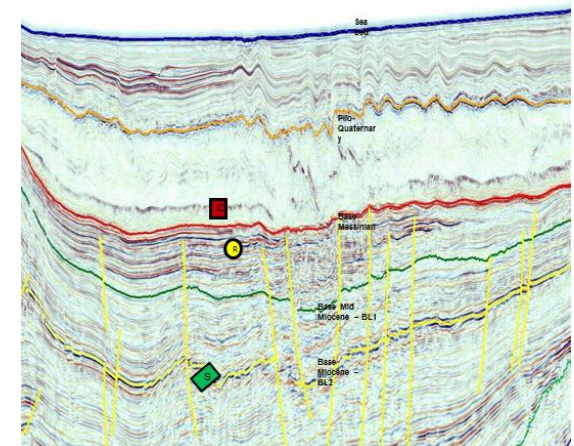
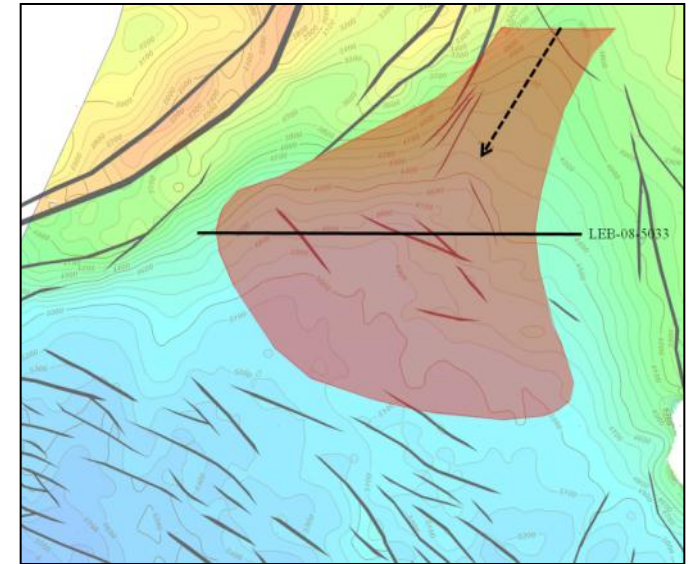
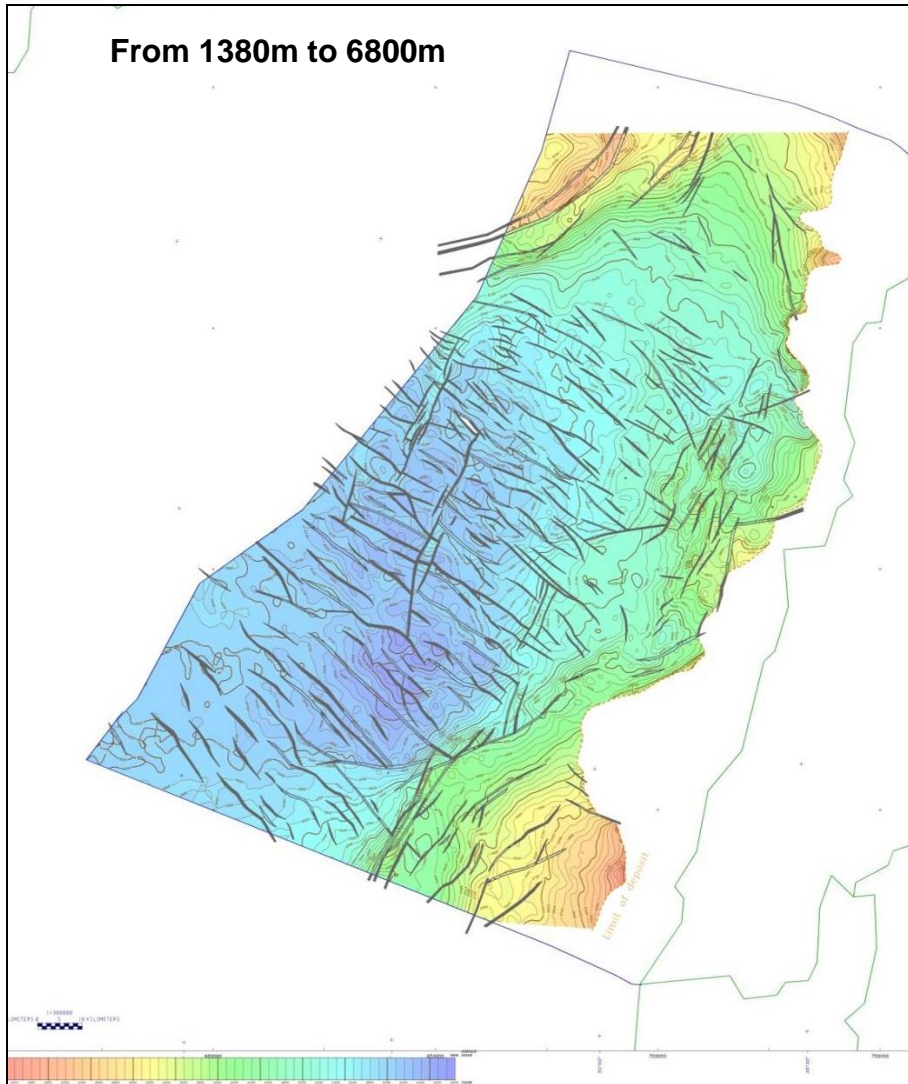


Margin/ Pinch Outs

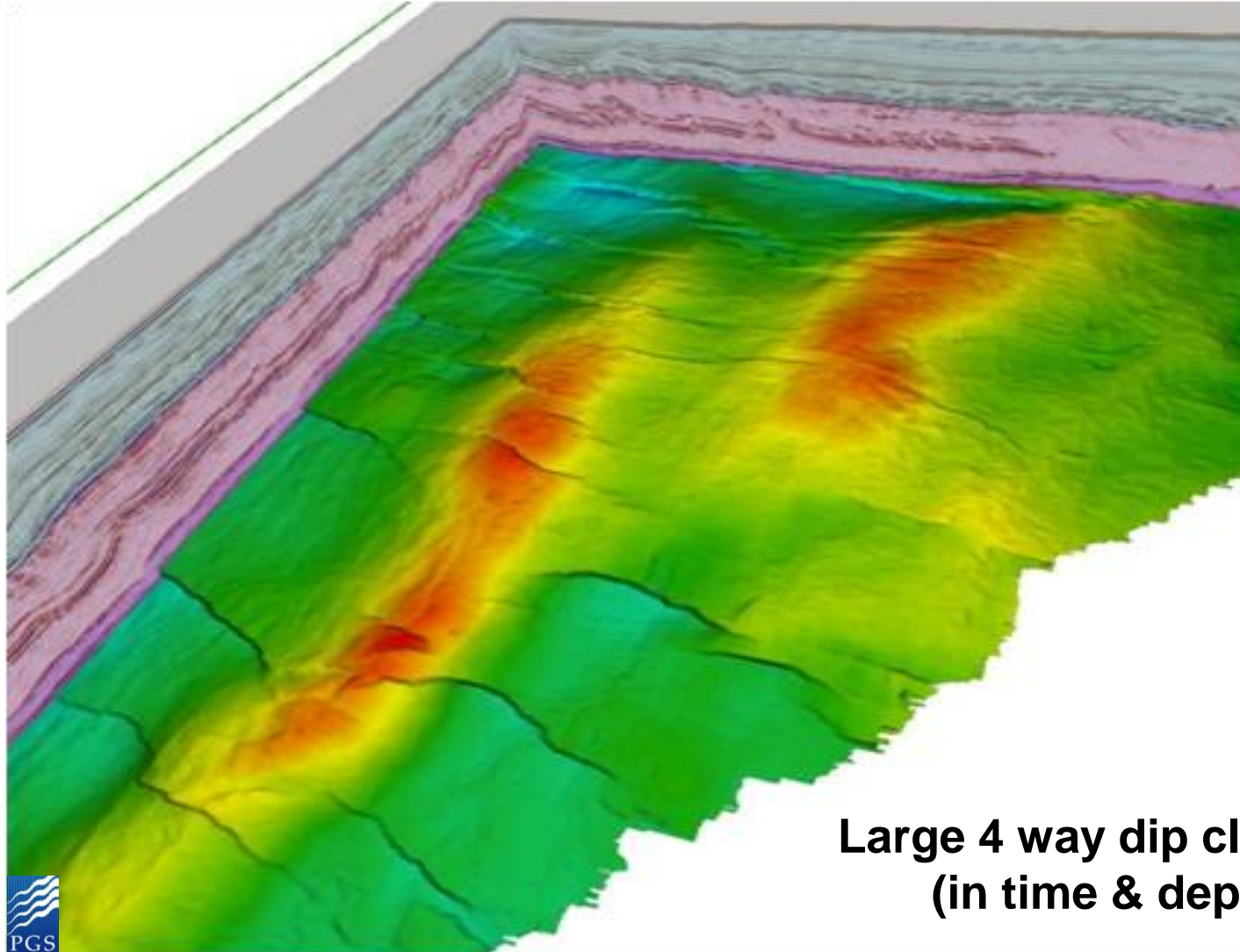


Strike-Slip Faults

Depth map of the Mid Miocene (BL1)

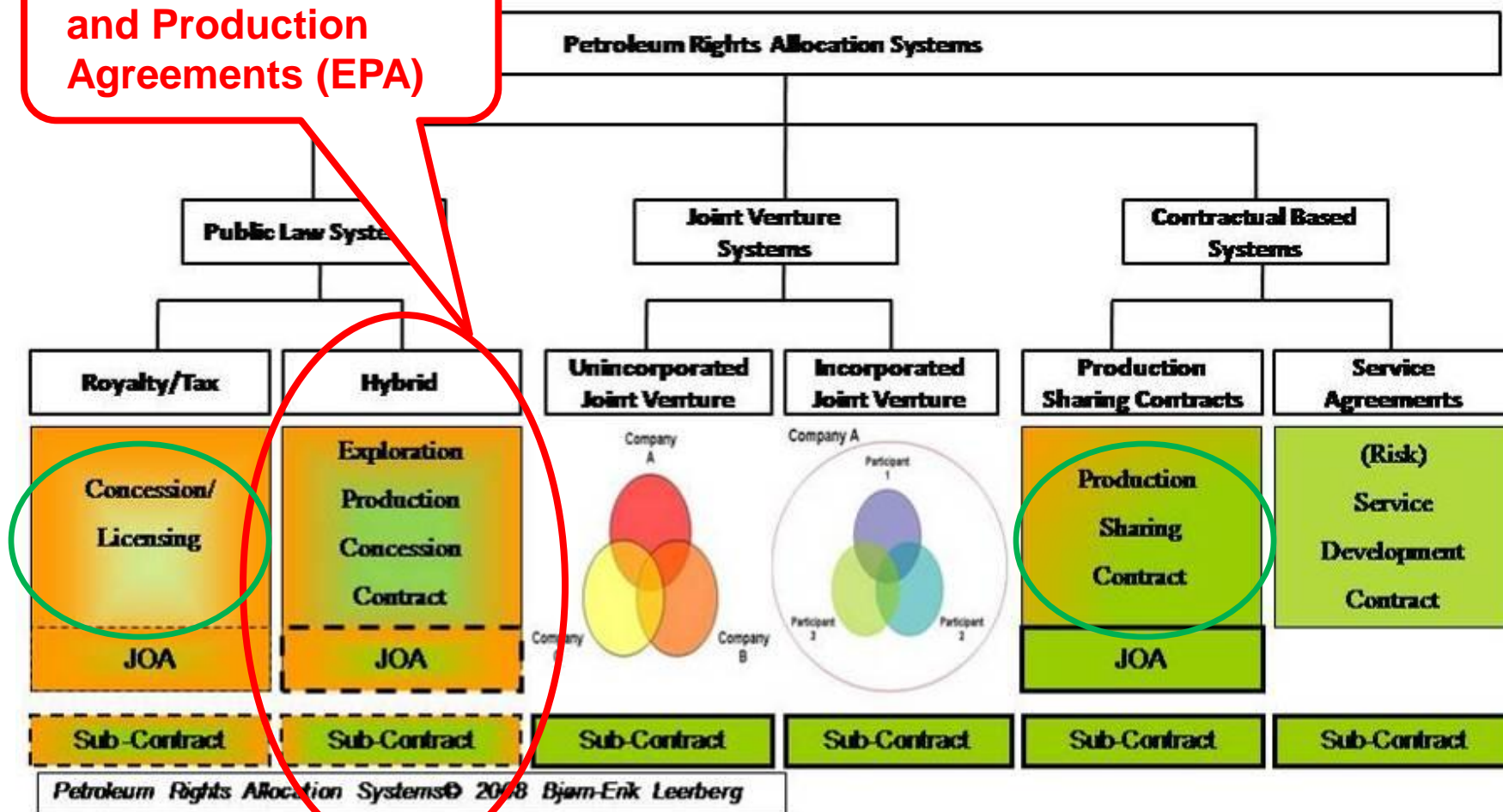


3D Seismic Visualisation

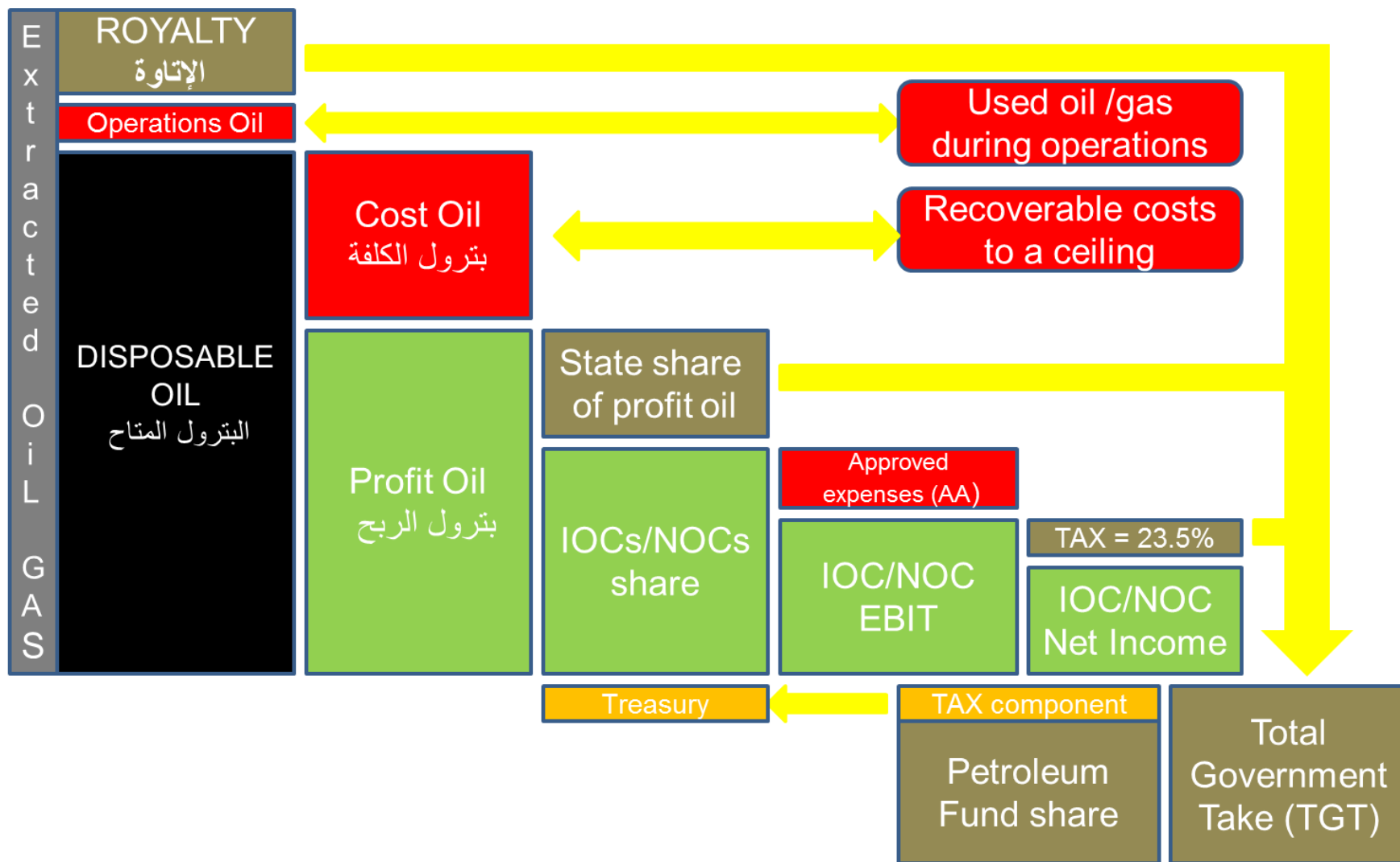


Petroleum Rights Allocation Systems

Lebanon Exploration and Production Agreements (EPA)



Lebanon Fiscal System



Petroleum Administration Update



1. The Petroleum Administration internal financial and administrative regulations were issued by a decree on the 4th of Jan 2012 .
2. The Council of Ministers (CoM) decided to adopt the draft prepared for the Petroleum Activities Regulations leaving to the PA to include the necessary amendments once appointed but in line with the general guidelines approved by the CoM .
3. The process of appointing the 6 board members to the Petroleum Administration has started and should be concluded in March.
4. Further information about the License Round will be made available towards the end of March.

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**Thank you and we look forward to
welcoming you to Lebanon**

