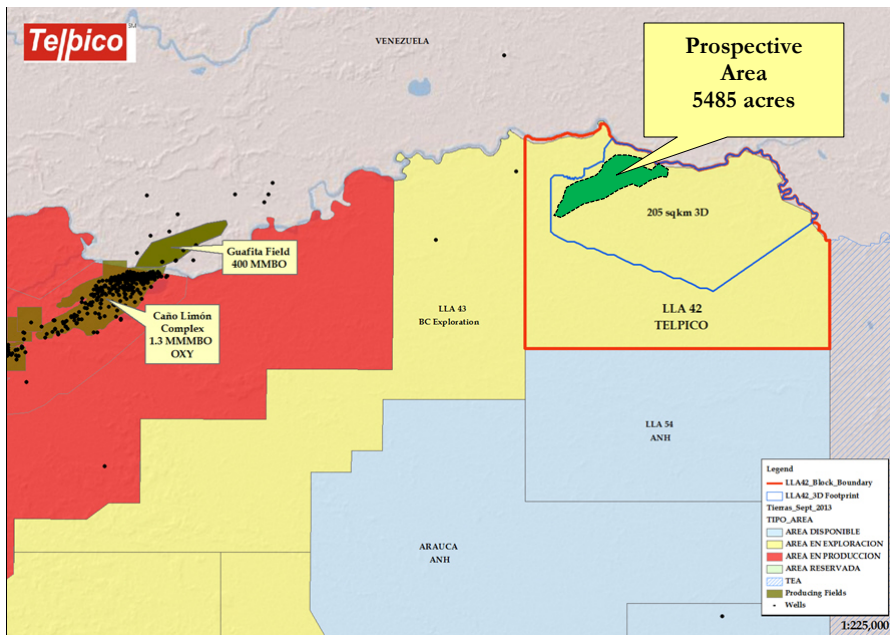# LLA 42 / Mirador and Carbonera LLANOS ORIENTALES BASIN, COLOMBIA

Telpico's LLA 42 block is located in Colombia's northern Llanos Basin on the Venezuelan border. The analogy, Caño Limon, is located forty kilometers west of LLA 42 and has produced over 1.3 billion barrels of oil to date from Cretaceous and Tertiary reservoirs. The Eocene Mirador Formation is the main producer of 29^0 API oil with a very strong active water drive. The deltaic sands of the Mirador have average porosities of 25% and 2-5 darcy permeability from a depth of approximately 7500'.

Structurally, the northern Llanos basin gently dips from east to west and is transected by northeast trending strike-slip faults that converge to form the trapping style in the area. Fault displacement varies considerably along these fault traces. In 2014, Telpico acquired a 207 km^2 3D to evaluate, not only the structural, but the stratigraphic potential of the area. In this regard, the processing has included amplitude analysis, high density velocity analysis (Fast-Vel), high frequency volumes (X-Freq), AVO and Inversion.

For the Tertiary and Cretaceous objectives, the source, seal, timing, reservoirs, and trap at LLA 42 will be similar to Caño Limon. In addition to the Tertiary and Cretaceous objectives, the Paleozoic section is un-explored in the basin and is also a target for Telpico, as well as other operators in the area. Several Carbonera, Mirador and Cretaceous prospects have been identified on a recently acquired (2014), very high quality, 207 km^2 PSTM-3D. The multiple objective Zapata prospect P50 reserve potential is 217 MMBO. The initial well will test multiple combination strat and structural objectives, proven productive in the analogy.
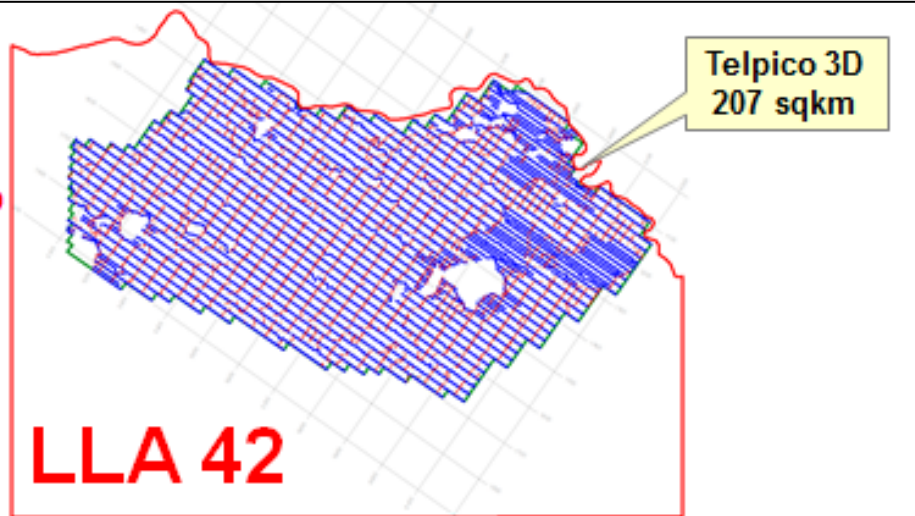
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Telpico

Post Plot Seismic Map

Telpico 3D
207 sqkm

LLA 42

1) **Raw Field Data** – 18m x 36m bins
2) **Pre-Stack Time Migration** (PSTM-map)
3) **5D Interpolation** – 18m x 18m bins
4) **FastVEL**
5) **XFreqII**
6) **Rock/Fluid Properties Modeling**

7) **Acoustic Impedance (AI) Inversion**
8) **Amplitude Variation with Offset (AVO)**
9) **Spectral Decomposition**
10) **Lithofacies Volumes-** (map)
11) **Integration and Interpretation of 1-10**

C2 Lithofacies Surface Extraction

5485 acres

Scale = 1:75000
0   5000   10000   15000 ft

0   800 1600 2400 3200 4000 m

Clean Oil Sand (HCl)
Clean Wet Sand
Shaly Sand
Shale