

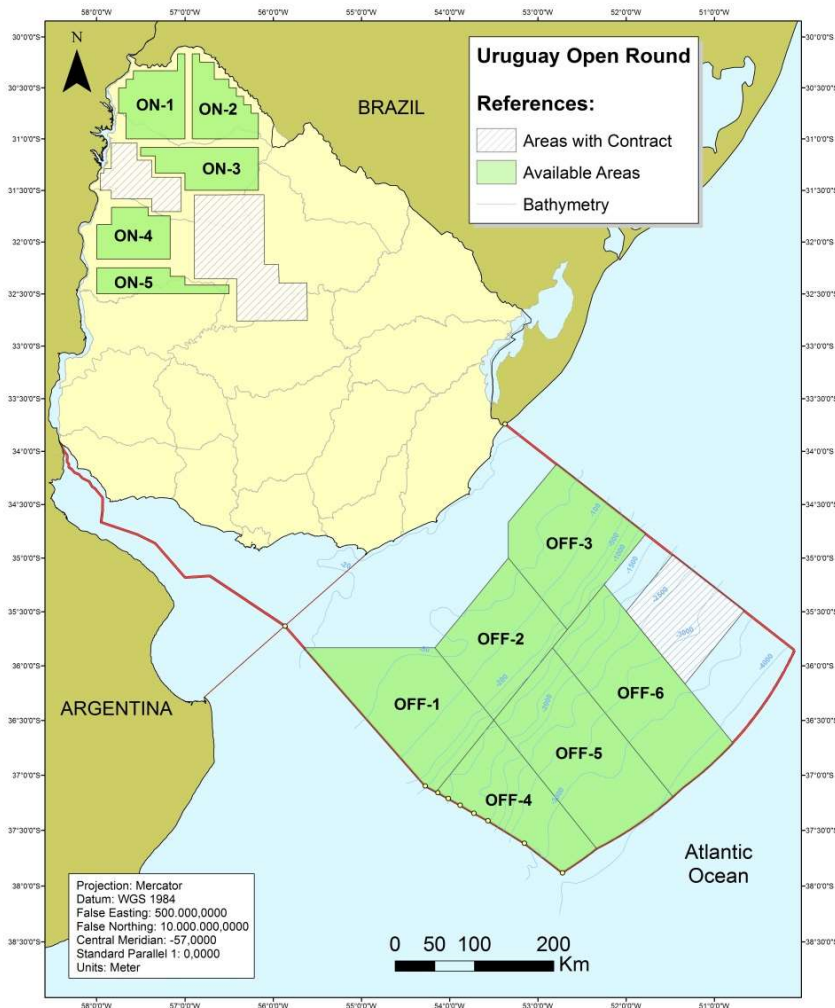
# OPEN URUGUAY ROUND

Onshore and Offshore Exploration Opportunities

**M.Sc. Josefina Marmisolle**

E&P Geologist

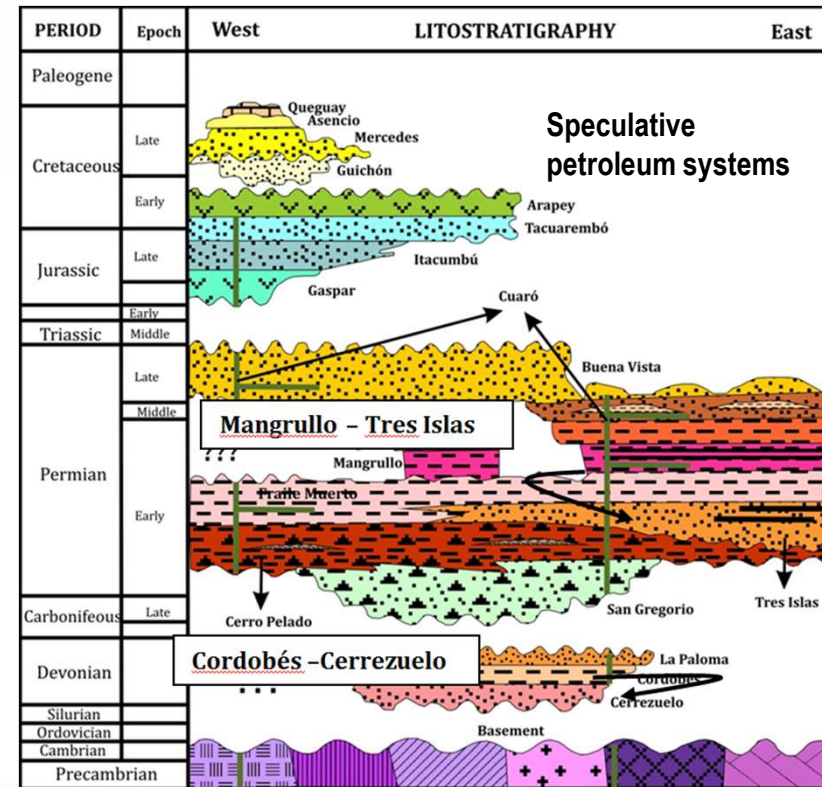
# Uruguay Open Round: key features



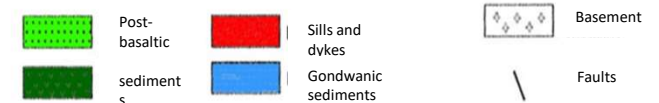
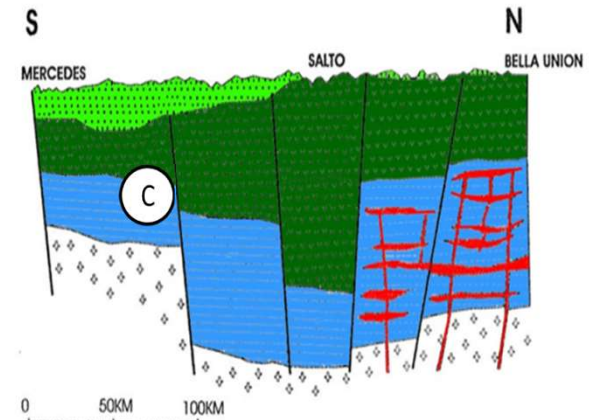
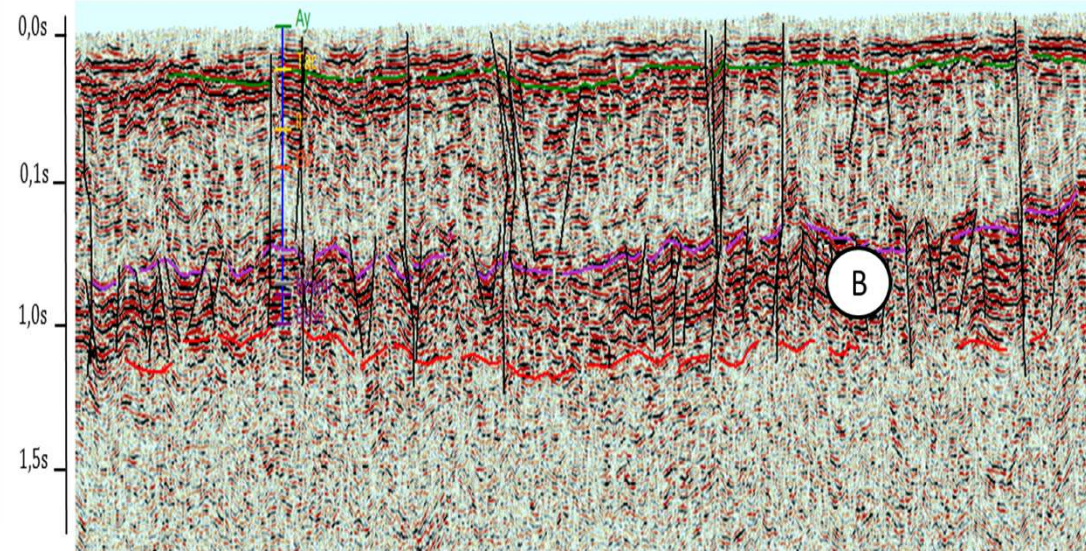
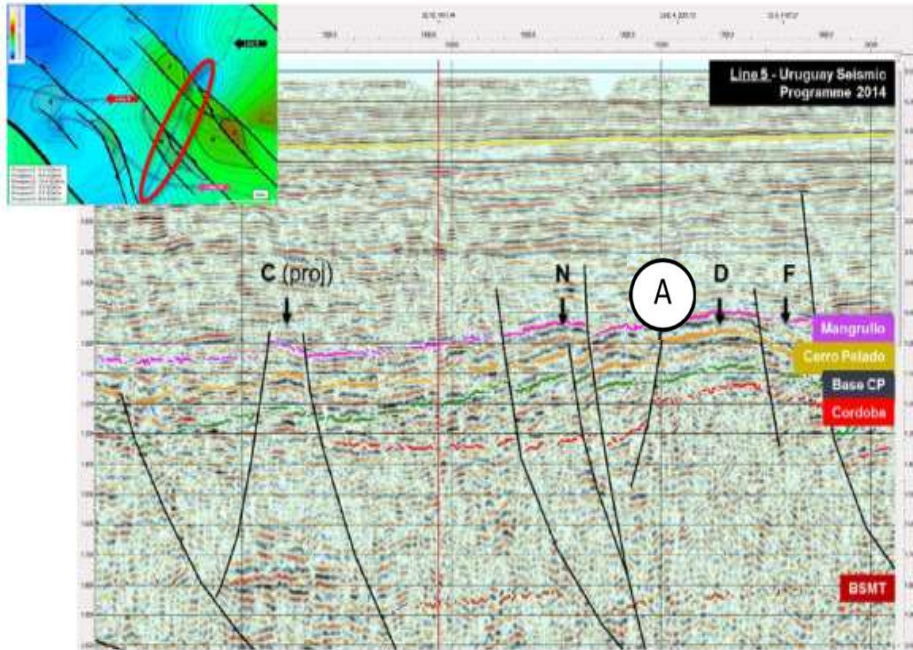
- Open door: qualification and submission of offers at any time
- Not Direct Negotiation, bidding round every semester.
- For offshore and onshore areas; very large blocks ( $\approx 15.000\text{Km}^2$  offshore and  $\approx 5.000\text{Km}^2$  onshore)
- Low qualification criteria and reduced guarantees
- Companies can qualify at any time (term ending 1 month before offers submission deadline). Only qualified companies can offer
- Offers opened at the end of May and at the end of November
- In case of competition for the same area on the same semester, offers are compared with an equation and the area awarded to the highest score offer
- Companies bid: work program for the 1<sup>st</sup> exploration period, profit oil split and ANCAP's association %
- Very moderate work commitments required (just G&G studies over existing data)
- Companies could have an offshore Area for 6 years before committing a well

# Onshore prospectivity

- Norte Basin is the most southern part of Paraná Basin.
- Has a surface more than 90.000 Km<sup>2</sup>
- Early Devonian to Late Cretaceous volcano-sedimentary fill.
- Maximum drilled thickness: ~2.400m (Yacaré Well, 2.377m)



# Norte Basin Plays



## Structural:

- A) 4 ways closure anticlines
- B) Faulted blocks
- C) Sills related traps

## Stratigraphic:

- D) channels, pinchouts, etc

# Onshore Exploration

## Operator: Schuepbach Energy Uruguay (SEU)

- 1 well conventional program (Cuchilla de la Pampa X1)
- Testing Late Permian sandstones levels of Cerro Padilla well



### Recent Success...Oil Discovery @ Cerro Padilla 1

- ✓ Well successfully drilled to Total Depth (TD) of 845m
- ✓ Logging confirmed 2m of oil saturated sand at 793m with fluorescence (oil shows) across extended interval
- ✓ **Testing confirms first ever discovery with oil to surface in Uruguay**
- ✓ Very encouraging but further work required as appears well missed top of structure

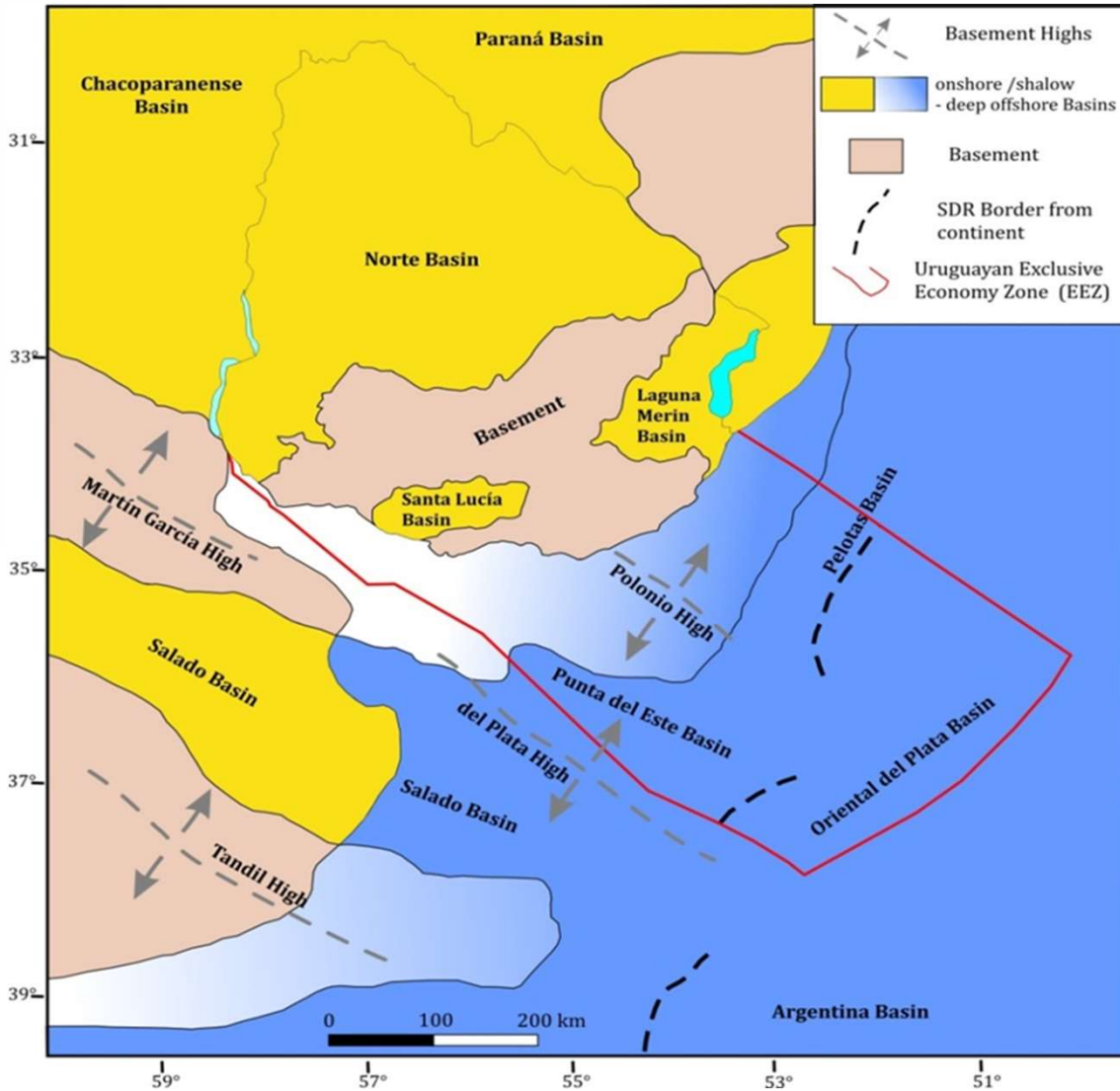


Modest initial discovery but **quantum leap in hydrocarbon prospectivity** of Uruguay

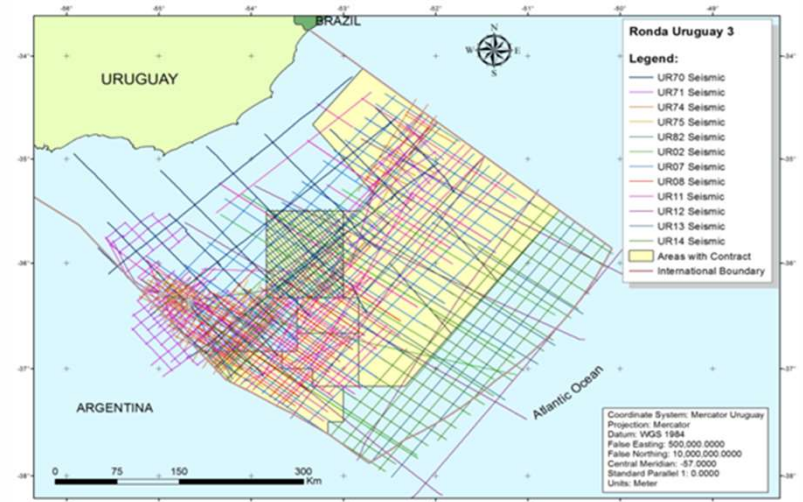
8

Source: [http://www.petrelenergy.com/irm/PDF/2043\\_0/UruguayPresentation](http://www.petrelenergy.com/irm/PDF/2043_0/UruguayPresentation)

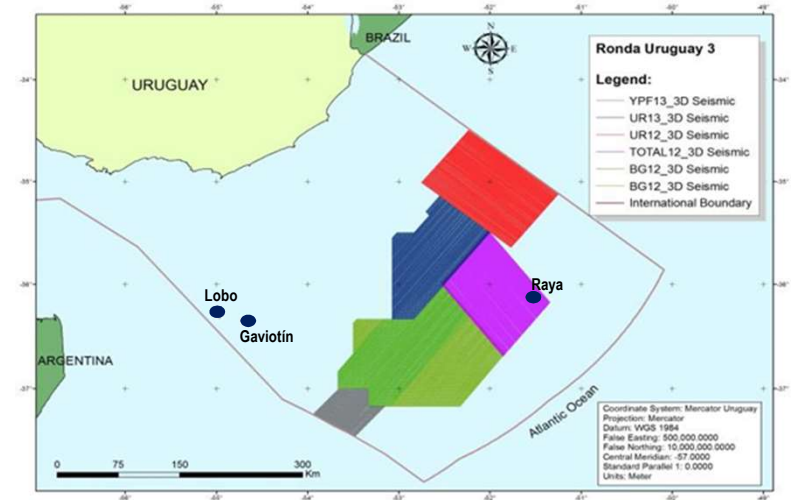
# Offshore Basins



2D Seismic: 41.000Km

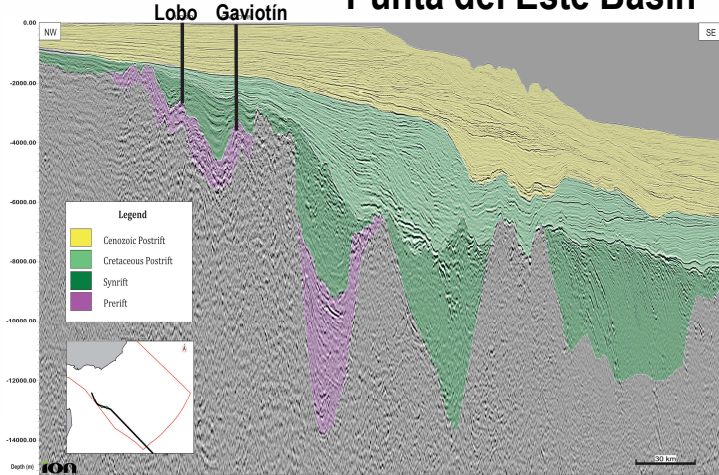


3D Seismic: 42.000Km<sup>2</sup>

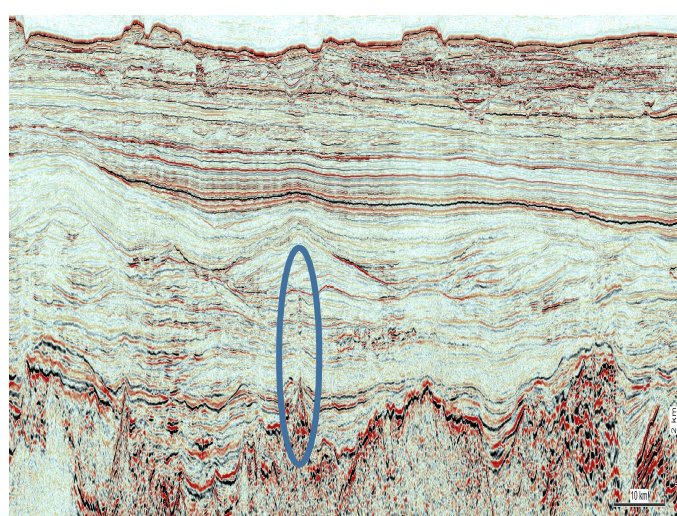
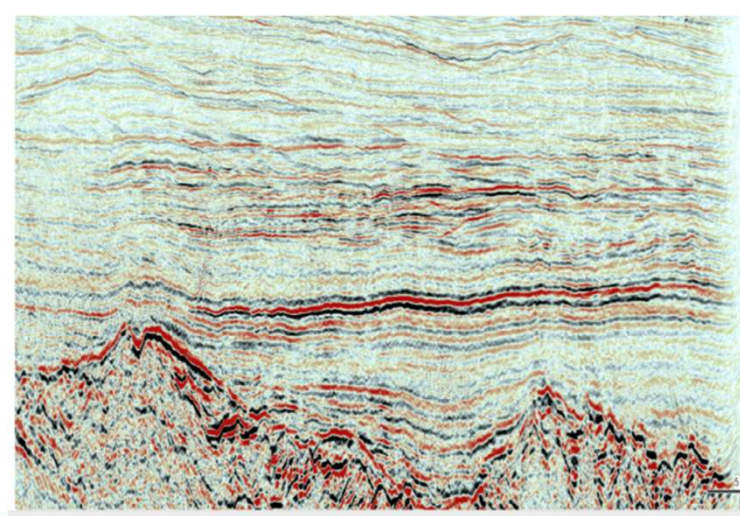
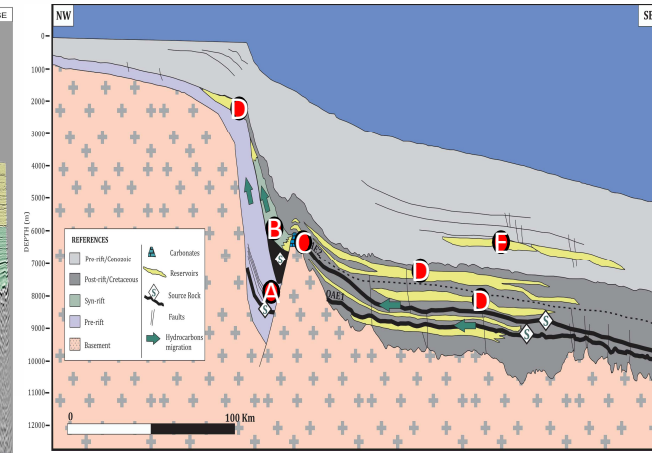
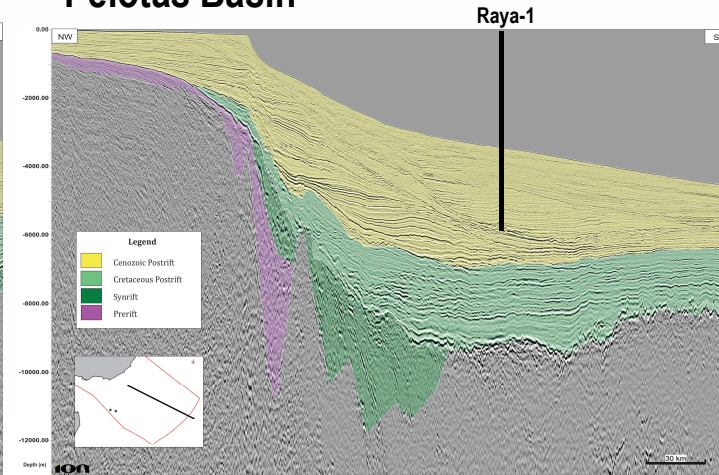


# Offshore Prospectivity

Punta del Este Basin



Pelotas Basin

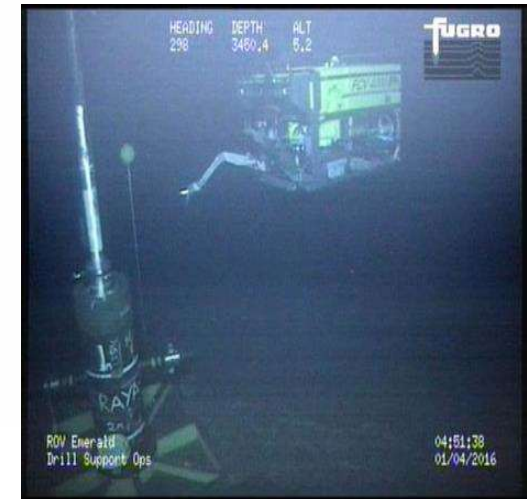


- A) pre-Rift Plays (pre-Cretaceous)
- B) Synrift Plays (Cretaceous)
- C) Transition Carbonate Plays
- D) Post-Rift Cretaceous Siliciclastic Plays
- E) Post-Rift Cenozoic Siliciclastic Plays

# Offshore exploration

## Raya Well: Exploratory well in ultra-deep waters

- Drilled after 40 years
- World Record Water depth (3404 m)
- 100 days of operation: on time and budget
- Complex Logistics on Port
- Construction of Mud and Cement plants
- Imports and Exports authorized by ANCAP and DNA in coordination
- Success from operational, HSE, drilling engineering, etc. point of views
- 2 people from ANCAP – E&P on board during whole operation





# Multiclient Agreements

## In force

- AGI: micro-seeps detection of hydrocarbons into sediment samples
- CGG/Robertson: 2 geological reports
- Geokinetics: 2D seismic onshore
- ION: 12800Km of 2D seismic
- ION: 3D seismic
- PGS: 15700Km<sup>2</sup> of 3D seismic
- Schlumberger: Advanced Interpretation Data Package
- Schlumberger (FIT): Fluid Inclusions Study of Lobo and Gaviotin wells
- Spectrum: 10400Km of 2D seismic
- TGS: Well Logs

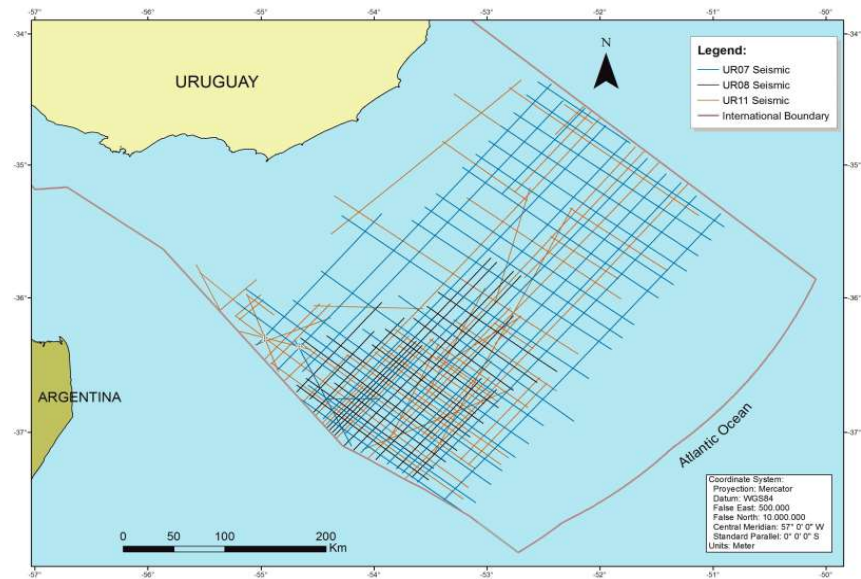
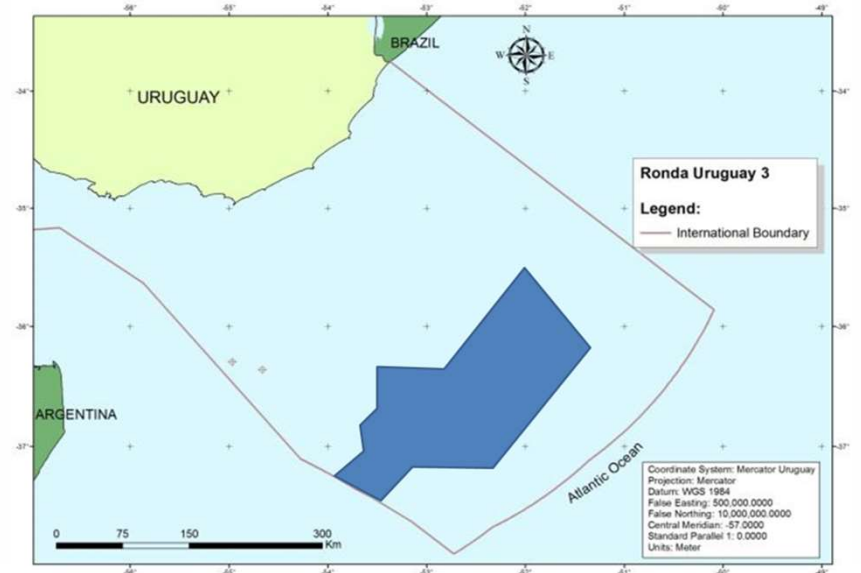
## In process of approval

- Airborne gravimetry
- Reprocessing of EM data
- EM acquisition
- RockScan of Onshore wells cores
- PostMortem report of Raya X-1 well
- Biostratigraphy of offshore wells
- Offshore Multibeam



# Data marketed by ANCAP

- 22.000Km<sup>2</sup> of 3D seismic
- 16.000Km of 2D seismic
- 13.000Km<sup>2</sup> of 3D EM
- Offshore data-package with wells and other data
- Onshore data-package with wells and other data
- Piston cores data



# Conclusions

- Uruguay is a reliable and stable country; above ground risks minimized
- Success in previous bidding rounds and MC agreements allowed a huge increase in the available database, reducing exploratory risks. ANCAP markets a lot of such data.
- ANCAP and Uruguay were able to deliver in complex projects such as 42.000Km<sup>2</sup> of 3D seismic or world record Raya well
- Many play types yet to be tested, both offshore and onshore
- 6 Areas offshore and 5 Areas onshore are offered in Open Uruguay Round
- Very large Areas
- Book Data Rooms or Meetings
- Excellent opportunity to acquire an asset with extremely low exploratory program requirements (up to 6 years without well commitment)
- Very good bidding round and contract terms



**Thank you very much for your attention**

**Visit us at Booth # 139**

**[www.rondauruguay.gub.uy](http://www.rondauruguay.gub.uy)**

Or contact us at: [jmarmisoll@ancap.com](mailto:jmarmisoll@ancap.com); [pgristo@ancap.com.uy](mailto:pgristo@ancap.com.uy) / [sferro@ancap.com.uy](mailto:sferro@ancap.com.uy)