Exploration **Offshore Uruguay**: Insights, Advances and Path Forward

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SEG | AAPG image
International Meeting for Applied Geoscience & Energy

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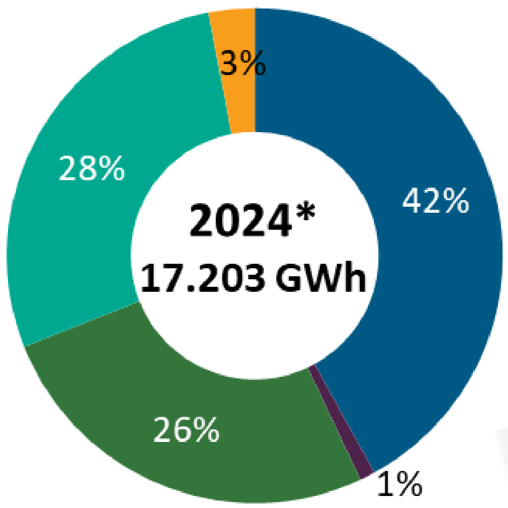
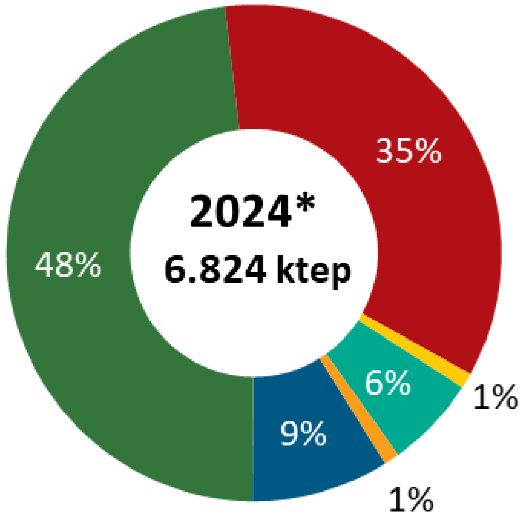
Uruguay – Energy Mix

Electricity



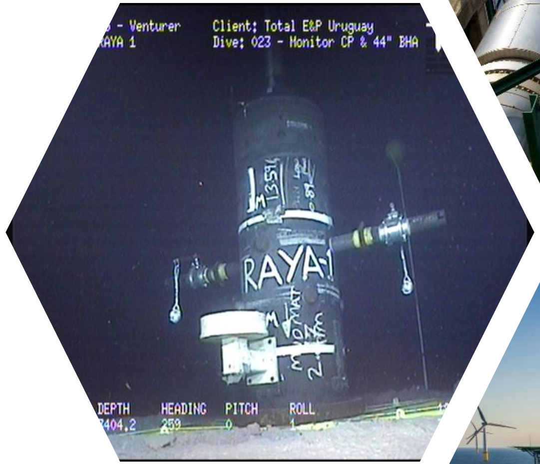
- Solar
- Wind
- Thermal - Traditional Biomass
- Thermal - Fossil Fuels
- Hydropower

Primary Energy



- Solar
- Wind
- Imported Power
- Natural Gas
- Petroleum and Derivatives
- Traditional Biomass
- Hydro

ANCAP: hydrocarbons **and** sustainable fuels



Hydrocarbons E&P

Decarbonization of
current operations

Green Hydrogen
Offshore

ALUR: biofuels
production

Production of
HVO / SAF

Natural Hydrogen
E&P

Production of
E-fuels

CO2 storage in
saline reservoirs

Production of
Green Hydrogen
for FCETs

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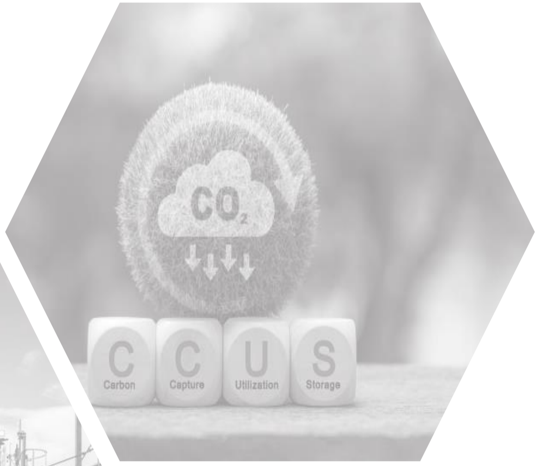

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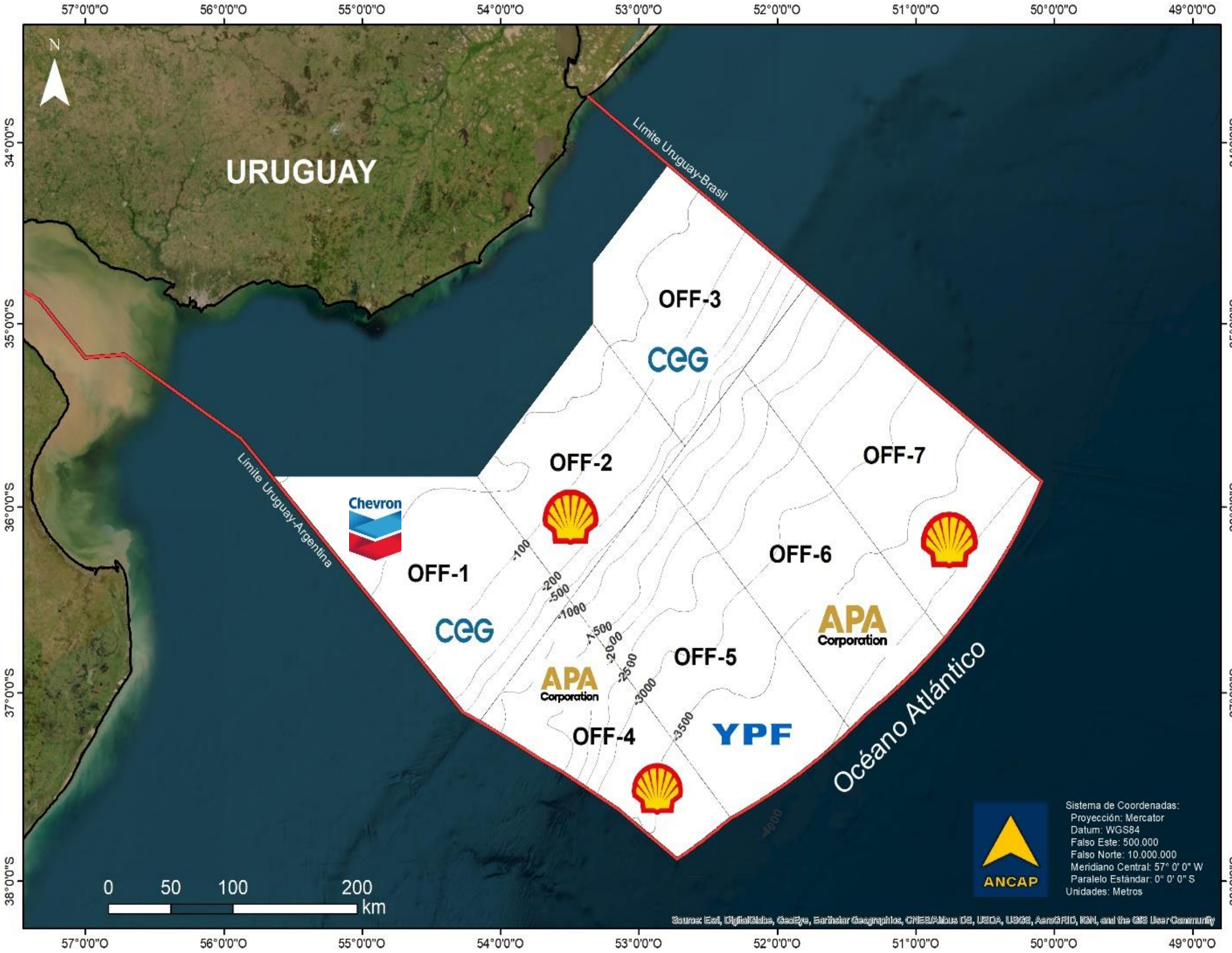
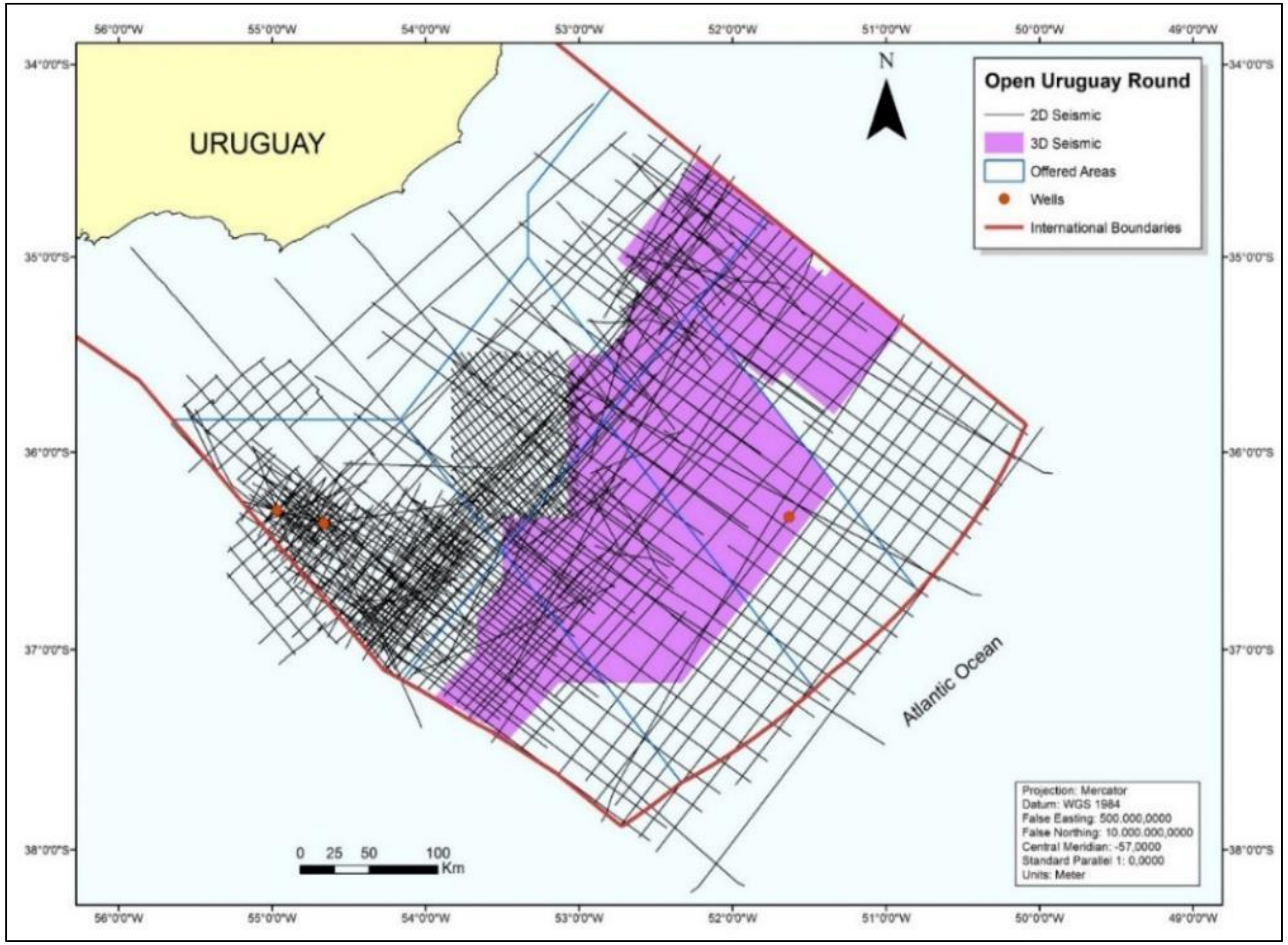
Update on E&P activities



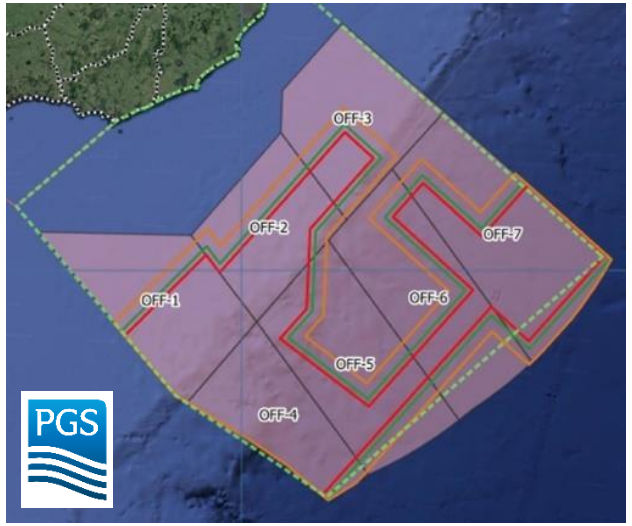
- MCMs
- Farm ins
- Investment: 129 MMUS$
- Exploration Activity includes:
  - working with existing data: seismic interpretation, basin modelling, prospect definition, volumetrics
  - acquisition of 2500Km^2 of 3D seismic (OFF-4) + 3500Km^2 of 3D seismic (OFF-1)
  - Deep-water exploratory well in block OFF-6

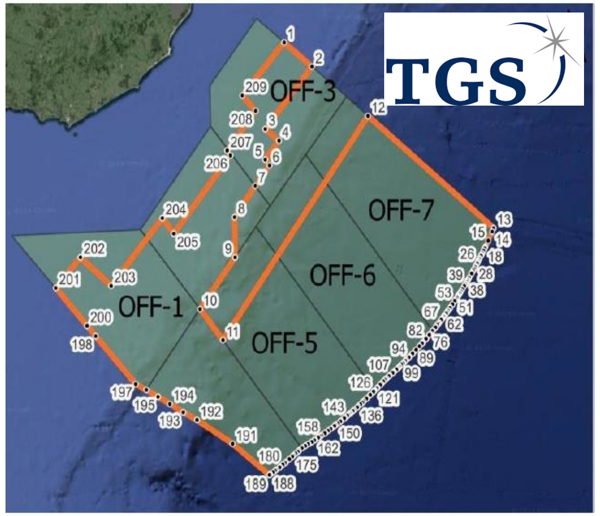
3D seismic

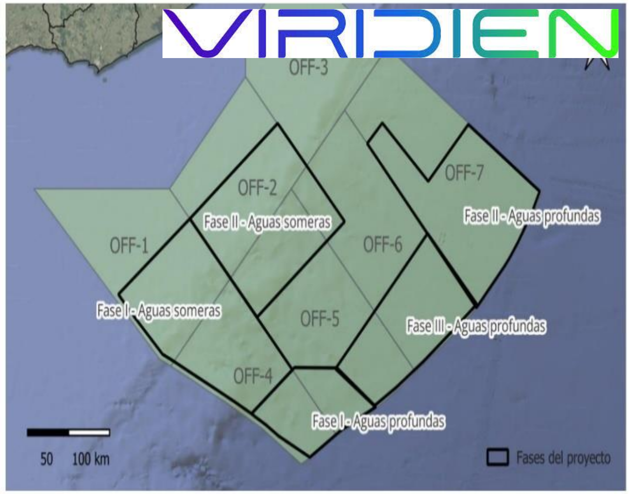
Existing database

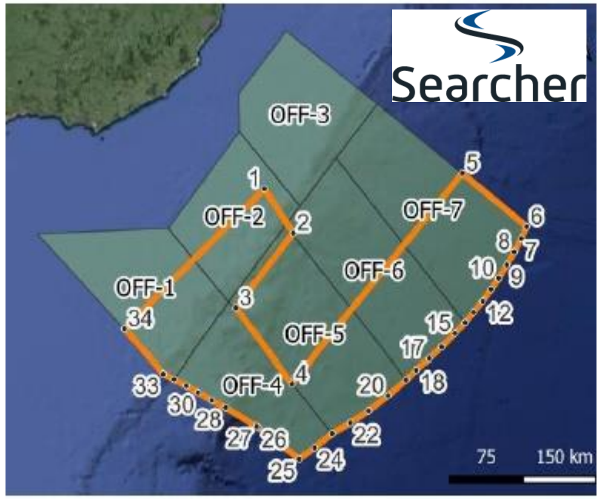


Multiclient Agreements









3D seismic

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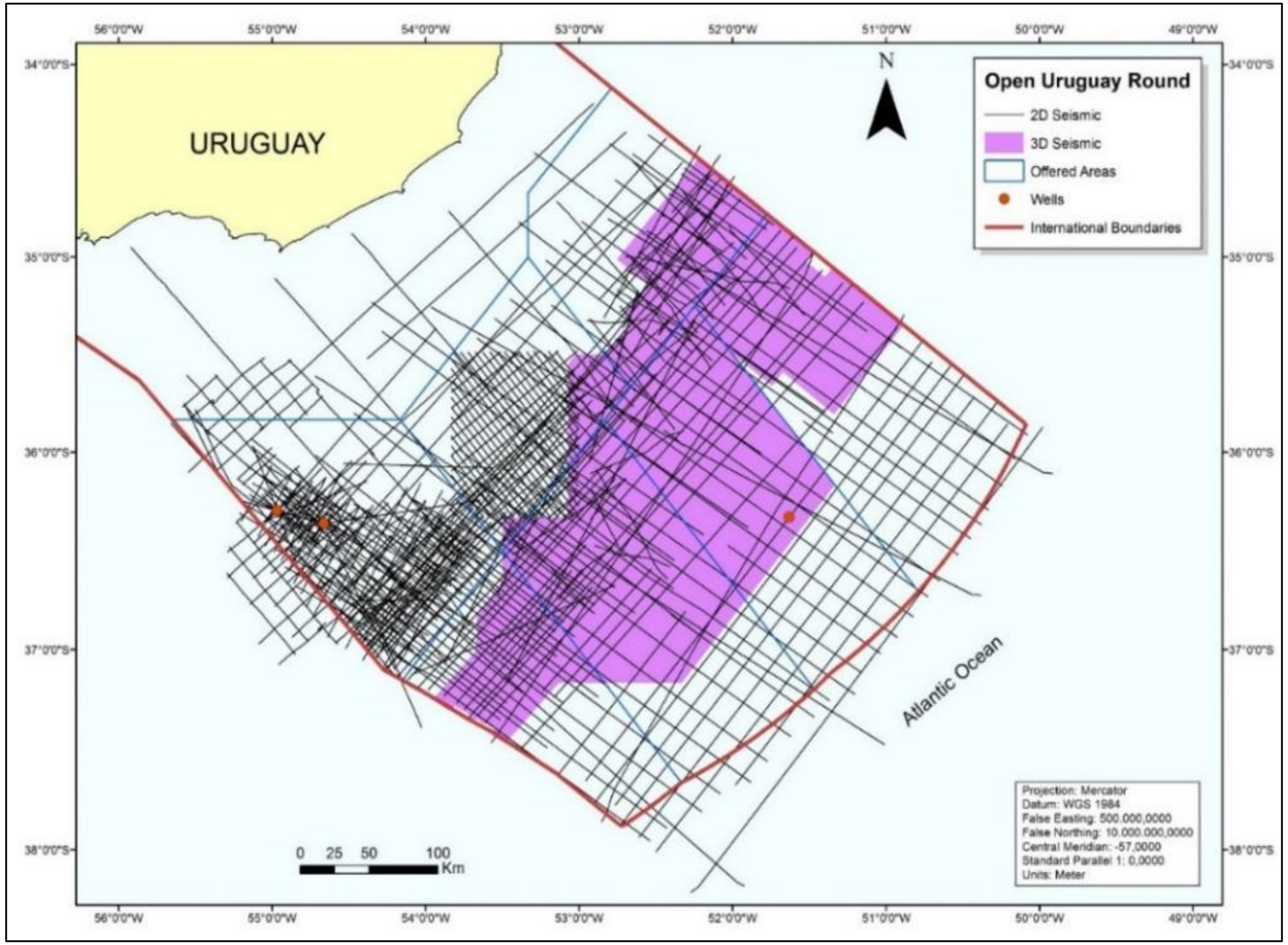
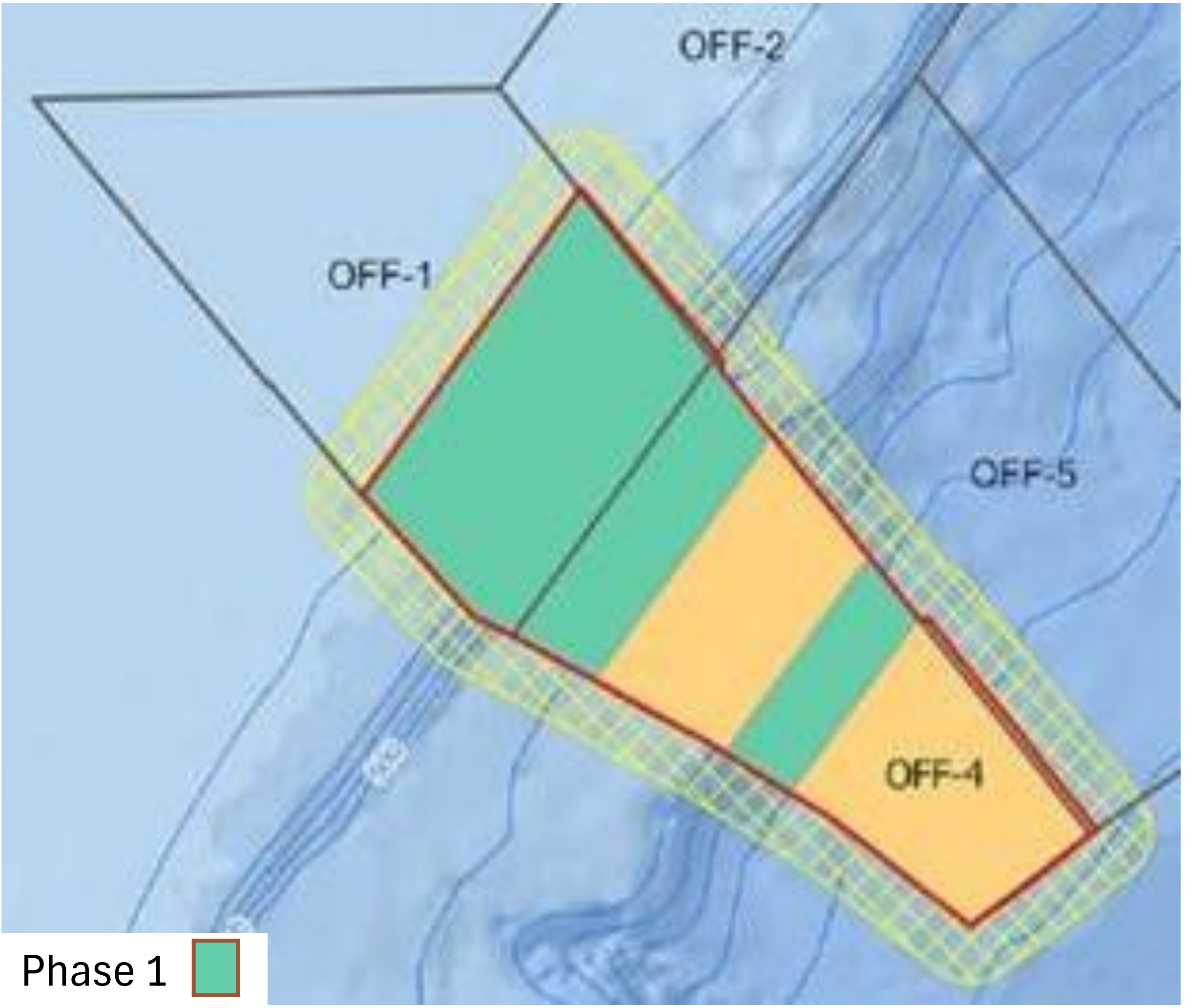


Foreseen 3D seismic acquisition – Q4 2025

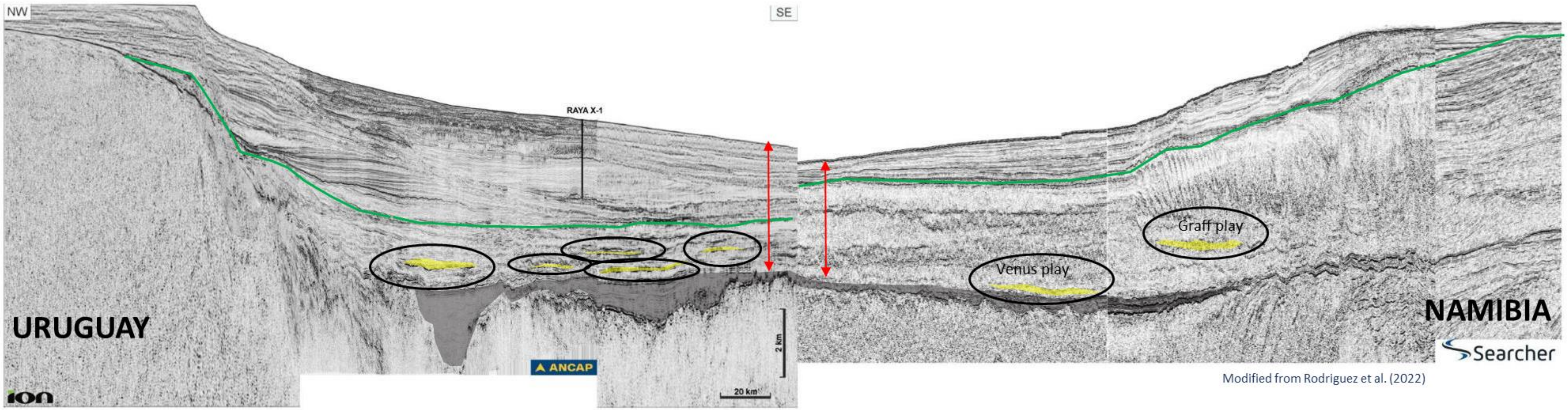


3D seismic - Permitting

Public Hearing, Maldonado, August 5th 2025

Remarkable analogies with Namibia

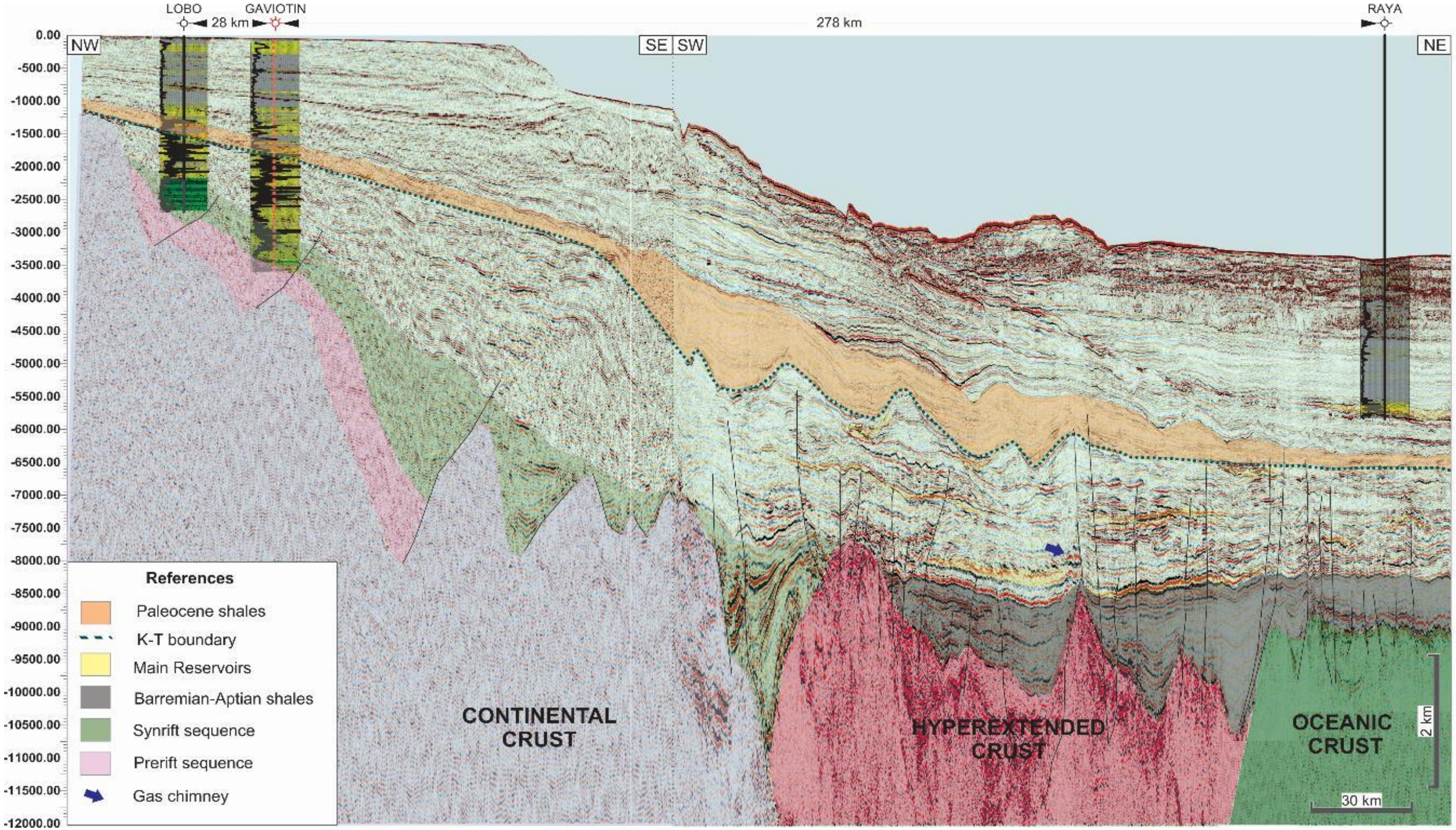
(and some differences too)

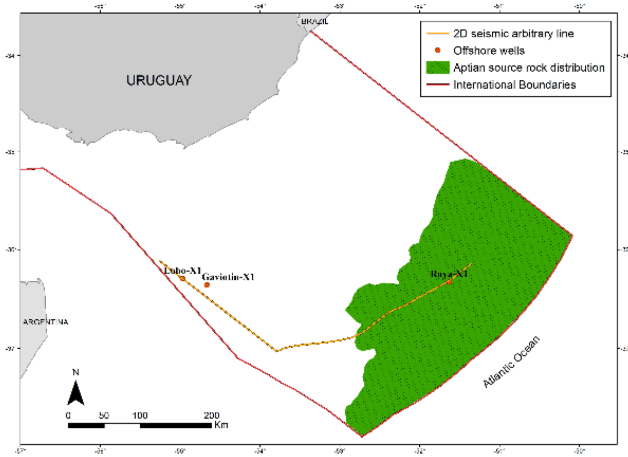


- Thicker Barremian-Aptian sequence offshore Uruguay
- More overburden for the Aptian source rock offshore Uruguay in some areas.
- Several cretaceous reservoirs identified analogous to Venus, Graff and Mopane (different provenance)
- Regional and thick Paleocene seal

Prospectivity

Deep-water Cretaceous post-rift sequences remain untested





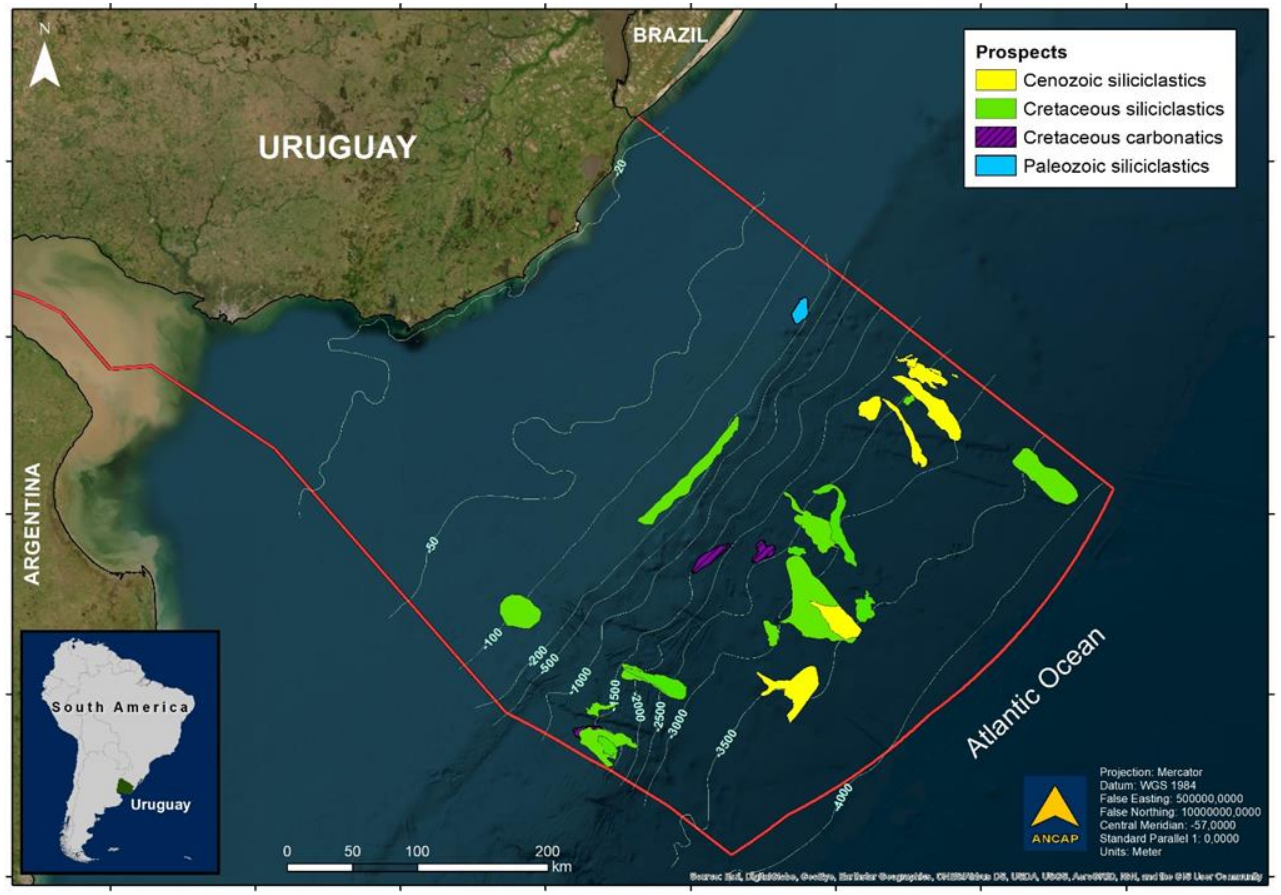
- Arbitrary line connecting the 3 offshore wells
- Fluid Inclusions in Lobo and Gaviotin in the K and not above
- K-T regional seal

Probability of Success for prospects offshore Uruguay

Prospects with the highest PoS are Albian and Upper Cretaceous turbidites and channel systems that show strong analogies with the recent discoveries in Namibia.

- 37 prospects
- 30.082 MMBOE (Pmean)

- Prerift play ~ 5%
- Sinrift play ~ 11%
- Transition play < 10%
- Cretaceous postrift plays ~ 11-23%
- Cenozoic postrift plays ~ 3-17%

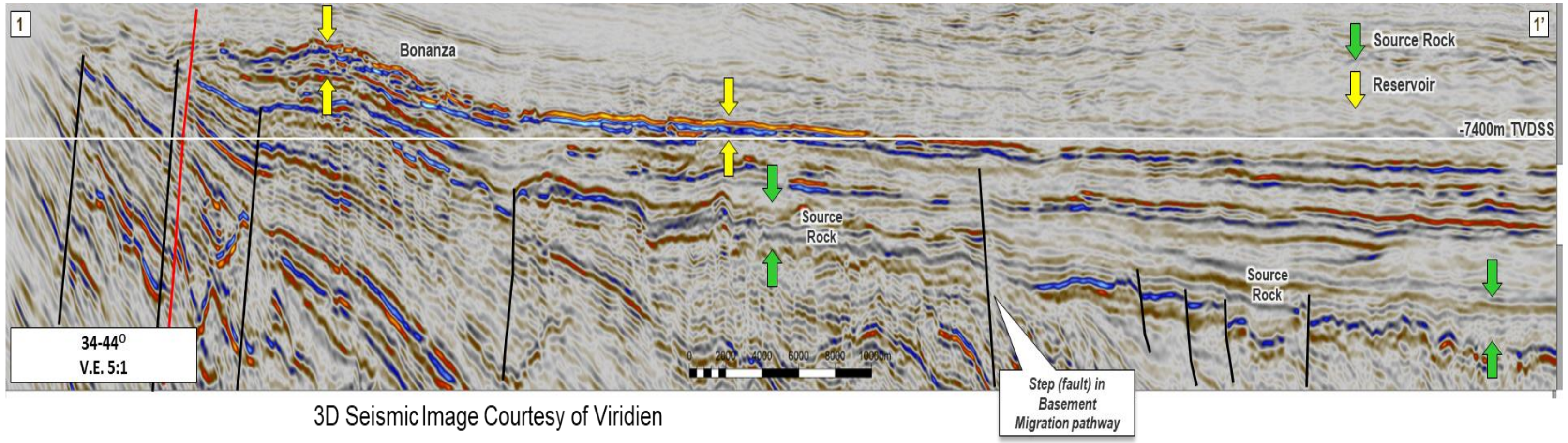


			Probabilities					
Play	Prospect	#	Source Rock	Reservoir	Migration & Timing	Trap	Seal	CoS %
1	Morpheus	1	45%	30%	55%	95%	75%	5,3%
2	Lenteja	2	70%	50%	80%	55%	75%	11,6%
3	Deep Blue	3	90%	30%	70%	70%	75%	9,9%
	Smith	4	70%	30%	70%	70%	75%	7,7%
	Pini	5	90%	30%	70%	70%	75%	9,9%
4	Tararira	6	90%	30%	70%	95%	75%	13,5%
	Anselmo	7	90%	30%	70%	95%	75%	13,5%
5	Delmira	8	90%	70%	90%	55%	60%	18,7%
	Lola	9	90%	70%	90%	70%	50%	19,8%
	Dientudo	10	90%	60%	90%	55%	60%	16,0%
6	Chafalote	11	90%	55%	90%	70%	75%	23,4%
	Corvina	12	90%	35%	90%	55%	75%	11,7%
7	Luisa	13	90%	55%	100%	70%	40%	13,9%
8	Esmeralda	14	90%	60%	70%	70%	65%	17,2%
	Jaspero	15	90%	55%	70%	70%	65%	15,8%
	Onix	16	90%	55%	70%	70%	65%	15,8%
	Granito	17	90%	45%	70%	70%	65%	12,9%
9	Tejera	18	90%	55%	90%	70%	75%	23,4%
	Matilde	19	90%	35%	100%	55%	75%	13,0%
10	Amalia	20	70%	80%	70%	63%	55%	13,5%
11	Guyunusa	21	90%	75%	70%	50%	75%	17,7%
	Petrone	22	90%	75%	70%	50%	75%	17,7%
	Píriz	23	90%	75%	20%	50%	75%	5,1%
	Calvo	24	90%	45%	80%	50%	75%	12,2%
	Nasazzi	25	90%	75%	45%	50%	75%	11,4%
	El Manco	26	90%	45%	70%	50%	75%	10,6%
12	Maspoli	27	90%	85%	30%	55%	90%	11,4%
	Ghiggia	28	90%	100%	10%	55%	90%	4,5%
	Flor	29	90%	75%	10%	55%	90%	3,3%

Area OFF-6

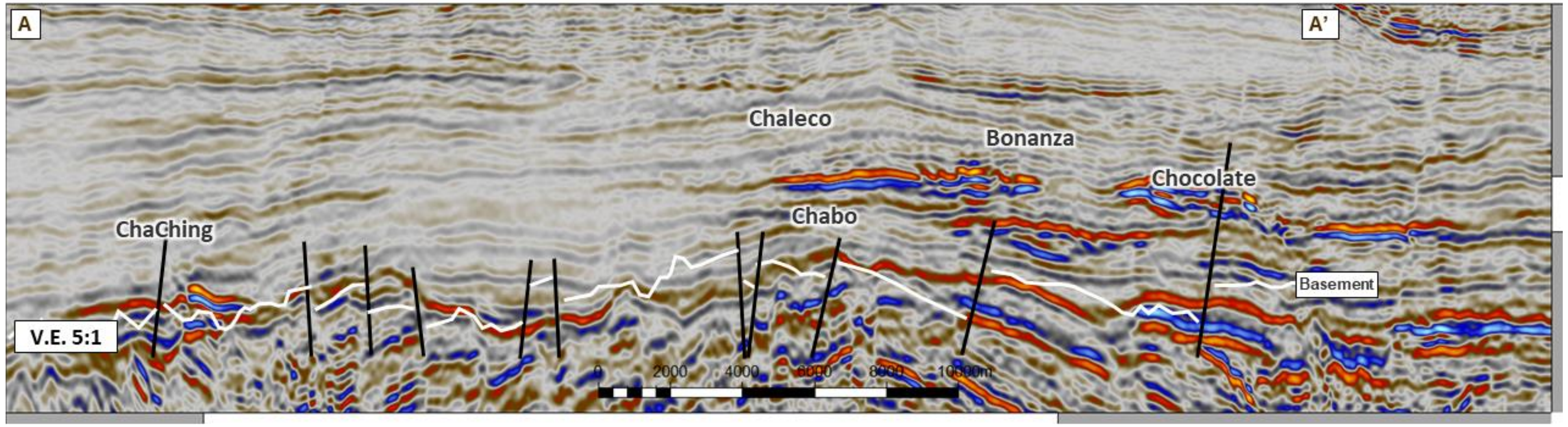
Material prospects identified in the untested Cretaceous sequence

AVO supported strat-trap turbidite prospects; 2 anchor prospects: **Bonanza** and **Chaleco** with a combined estimated STOIIP over 4.0 Bbo



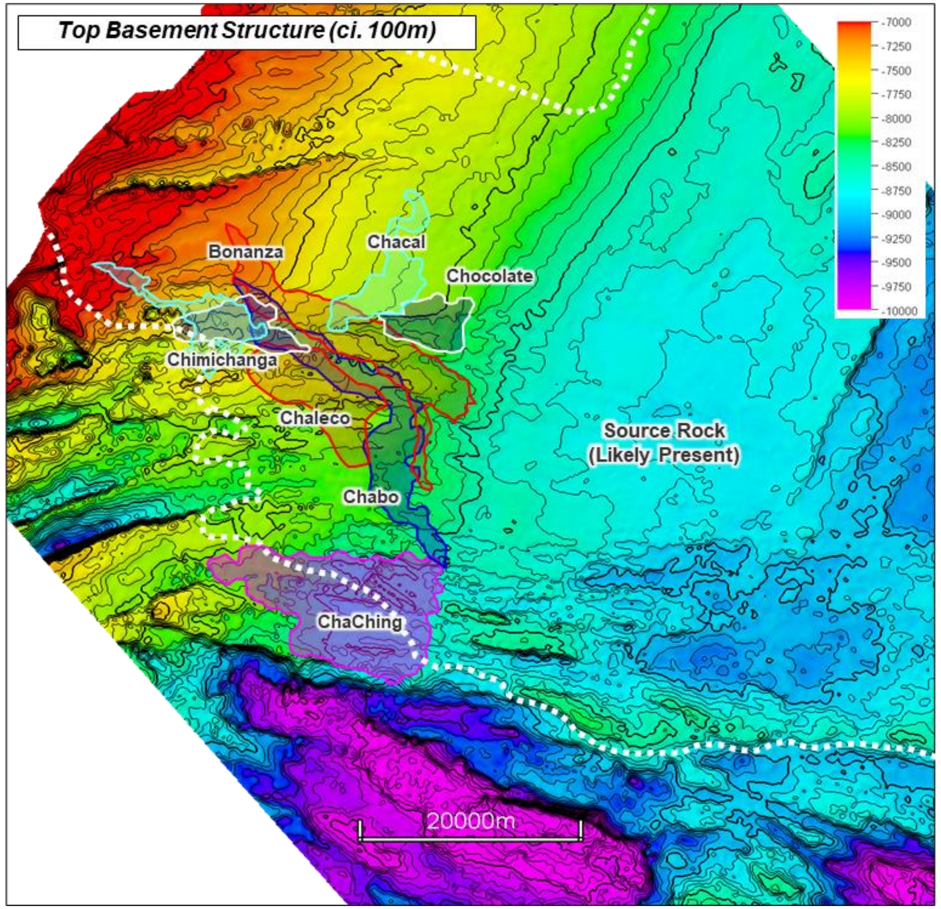
3D Seismic Image Courtesy of Viridien

Far (24-34°) Seismic Depth Section Through Key OFF-6 Prospects and Leads



3D Seismic Image Courtesy of Viridien

Additional prospectivity within tie-back distance of anchor prospects identified and characterized; 5 leads with a combined STOIIP over 4.5 Bbo



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Production of
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Onshore: Natural or Geologic Hydrogen

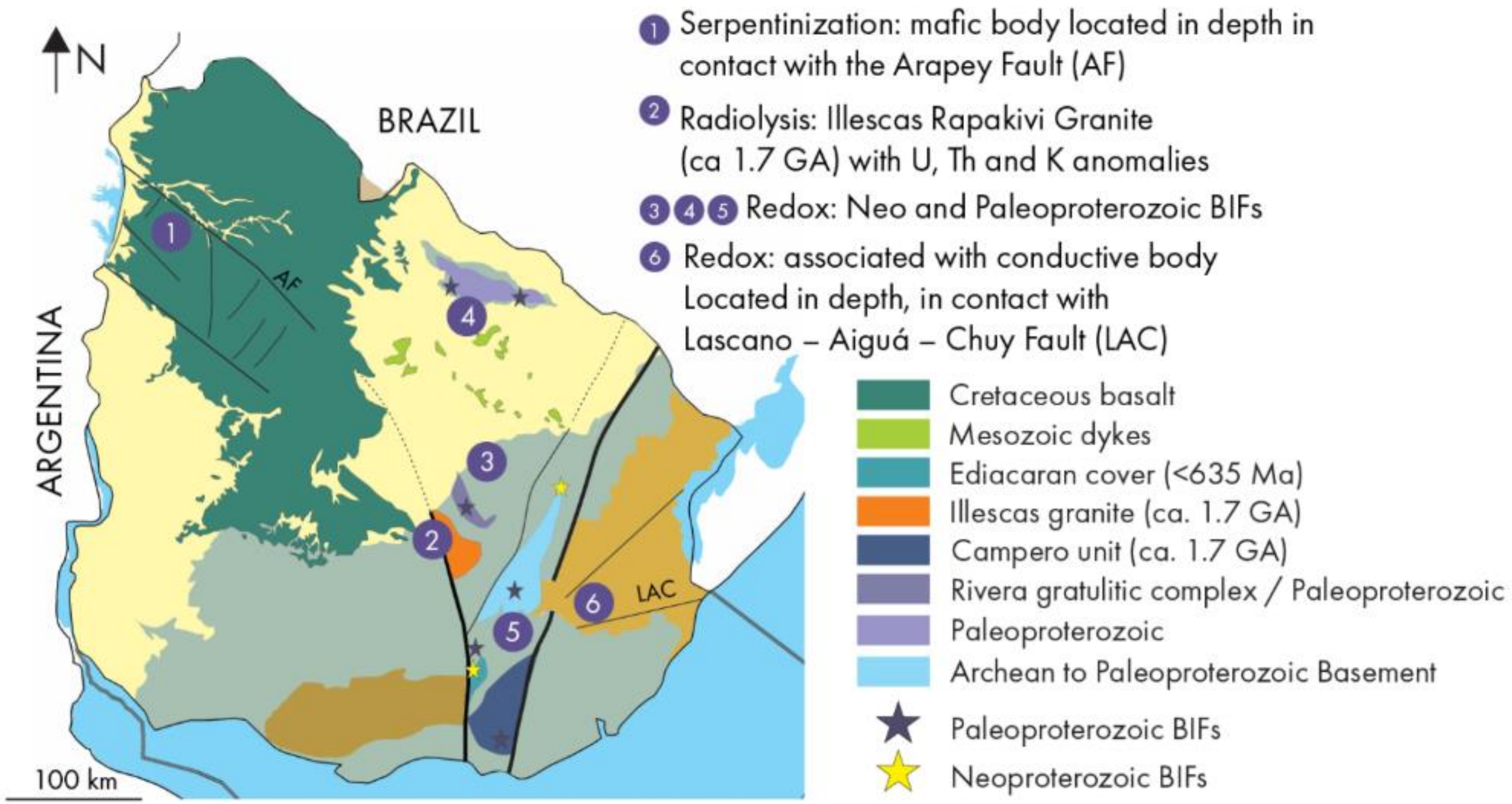
ANCAP's plan to develop this resource

- **Year 2024**
- Understanding H_2 Nat Business
- Training
- Networking
- Research Agreements

NATIVO ENERGY

- **Year 2025**
- Bidding Round Terms and Contract Model – Send for approval of MIEM
- Multiclient Agreements
- Launching H_2 Nat Bidding Round

- **Year 2026**
- Submission of bids in the H_2 Nat Bidding Round
- Signature of H_2 Nat E&P Contracts



Selected priority sites for natural hydrogen exploration onshore Uruguay. ANCAP. Modified from Sequeira et al., (2024); Oyhantçabal et al., (2018); and Oriolo et al., (2018).

https://geoexpro.com/hydrogen-exploration-potential-in-uruguay/

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Green Hydrogen Offshore

ALUR: biofuels production

Production of HVO / SAF

Natural Hydrogen E&P

Production of E-fuels

CO2 storage in saline reservoirs

Production of Green Hydrogen for FCETs

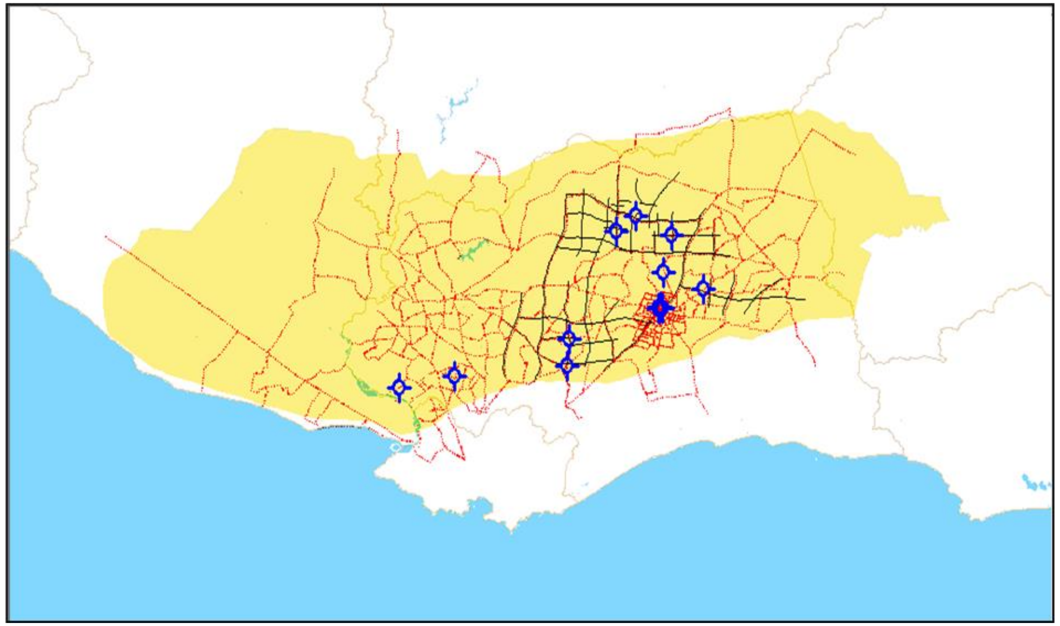
Underground storage of fluids in saline reservoirs

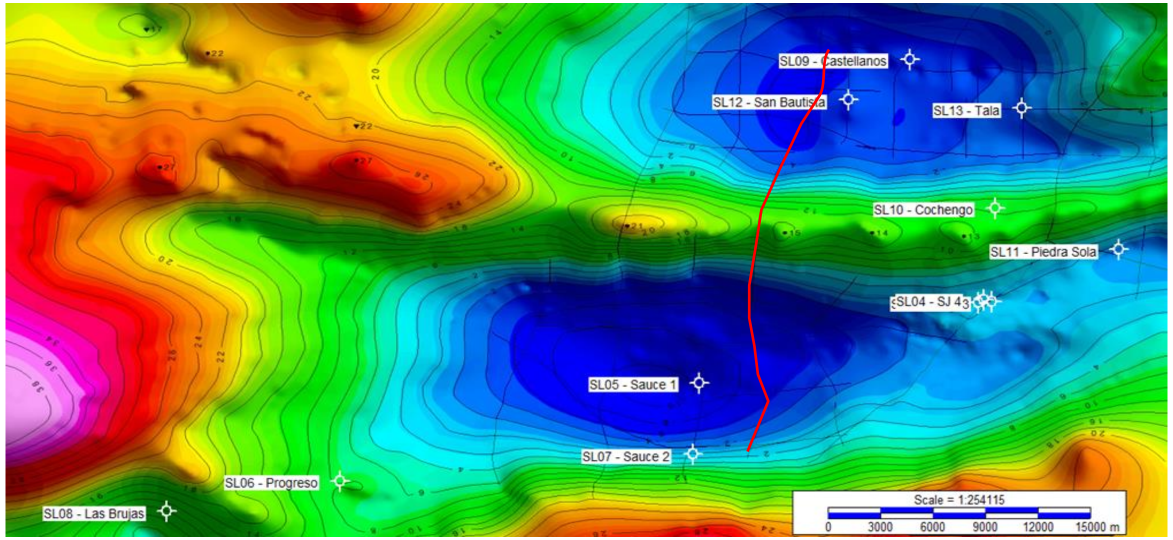
CO_2, Hydrogen, Natural Gas

- **<u>Year 2026</u>**
- Discuss with MIEM ANCAP's role
- Understanding CCUS business
- Training
- Networking

- **<u>Year 2027</u>**
- Research Agreements
- Draft Bidding Round Terms CCS
- Approval MIEM
- Multiclient agreements

- **<u>Year 2028 & 2029</u>**
- Launch CCS bidding Round
- Signature of contracts





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Thank you very much for your attention