

DAY 1: CONVENTIONAL AND UNCONVENTIONAL RESOURCES & FINANCING

Hydrocarbons Exploration Environment



Brazil

OIL | GAS | ENERGY 2021

IN-VR.CO/BRAZIL-SUMMIT



RONAN AVILA
Deputy Superintendent
of Geological and
Economic Assessment
ANP



Brazil's Upcoming Bidding Rounds
GEOLOGICAL POTENTIAL

Ronan Ávila

Deputy Superintendent of Geological and Economic Assessment [ANP-SAG]

May 20th, 2021



NOTICE

- The ANP's institutional presentation is based on current and reliable information, but no representation or warranty is made as to its accurateness and completeness, and it should not be relied upon as such.
- Projections and estimated values are included without any guarantee as to their future realization.
- Forward-looking data, information, projections and opinions expressed during the presentation are subject to change without prior notice.





Brazil has opportunities for different company profiles

Santos and Campos Basin (Pre-Salt)

73.1% Total Productions

122 prod. wells



TRANSFER OF RIGHTS SURPLUS
Brazil
PRODUCTION SHARE

PRE-SALT
Brazil 7
PRODUCTION SHARE

High Potential and Frontier Areas

ROUND
Brazil 17
OIL AND GAS CONCESSIONS

Offshore Sed. Basins Sandstone Turbidites (K-T) and Albian Carbonates prod. Opportunities for Pre-Salt

347 prod. wells



Frontier Areas

OPEN
ACREAGE
Brazil
OIL AND GAS CONCESSIONS

ROUND
Brazil 17
OIL AND GAS CONCESSIONS

Onshore Basins Mature Basins (K) Giant Basins (Paleozoic)

5.971 prod. wells



Mature and Frontier Areas

OPEN
ACREAGE
Brazil
OIL AND GAS CONCESSIONS

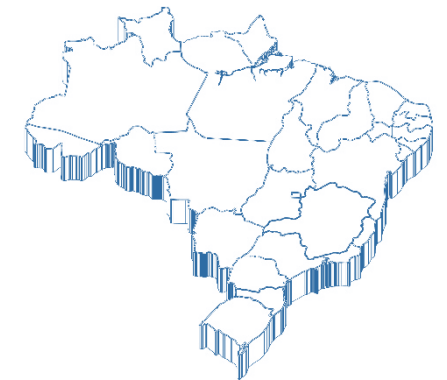
Operator A – qualified to ultra-deepwater, deepwater, shallow water, onshore and in areas with marginal accumulations;

Operator B/C – qualified to operate blocks located in shallow water, onshore, and areas with marginal accumulations;

Operator D – qualified to operate only in blocks and areas with marginal accumulations;

OUTLINE

- 2nd Transfer of Rights Surplus Volumes
- 17th Bidding Round
- 3rd Cycle of Open Acreage



[Law 12,276 / 2010](#)

Transfer of Rights is a regime of direct contracting of specific areas of petroleum of the Union for Petrobras, **granted the right to extract up to five billion barrels of oil equivalent.**

[CNPE Resolution N°. 6/2019](#)

Considering the surplus volumes, the National Council for Energy Policy (CNPE) authorized the National Agency of Petroleum, Natural Gas and Biofuels (ANP) to hold the Production Sharing Bidding Round on those areas contracted under the Transfer of Rights. **Atapu, Búzios development surplus volumes were contracted in 2019, with no offer to Sepia and Atapu.**

[CNPE Resolution N°. 05/2021](#)

Establishes the technical and economic parameters for Sepia and Atapu.

[CNPE Resolution N°. 09/2021](#)

Mandatory participation of Petrobras, as operator (30%). **Sépia and Atapu, in the Santos Basin, will be offered.**

	AREA	SIGNATURE BONUS (R\$)	PROD. SHARE (Min.%)
2019	ATAPU	R\$ 13.742 billion	26.23%
	SEPIA	R\$ 22.859 billion	27.28%
2021	ATAPU (60,5%)	R\$ 4.002 billion (70 %) ↓	5.89% (77 %) ↓
	SEPIA (68,7%)	R\$ 7.138 billion (68 %) ↓	15.02% (45 %) ↓

[MME Ordinance N°. 08](#) was published, which amends [MME Ordinance N°. 213/2019](#), which establishes the guidelines for calculating the compensation rate to Petrobras for investments made in the Sepia and Atapu fields.

Compensation for Petrobras

US\$ 3.25 billion for Atapu and US\$ 3.2 billion for Sépia

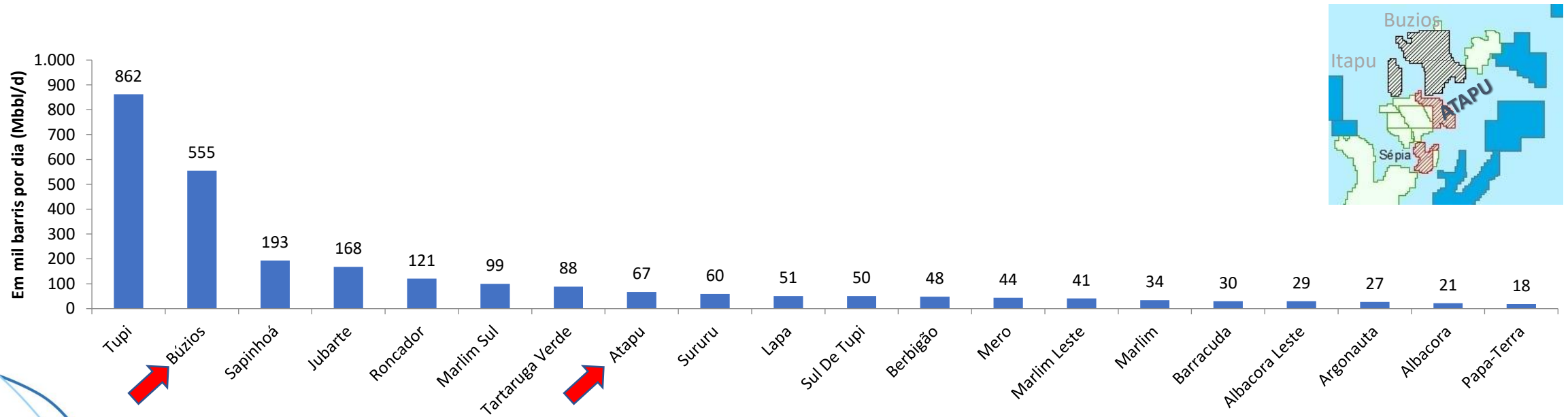
<https://www.gov.br/anp/pt-br/servicos/legislacao-da-anp/rl/mme/portaria-mme-08-2021.pdf>

COMPARISON - AUCTIONS 2019 *versus* 2021

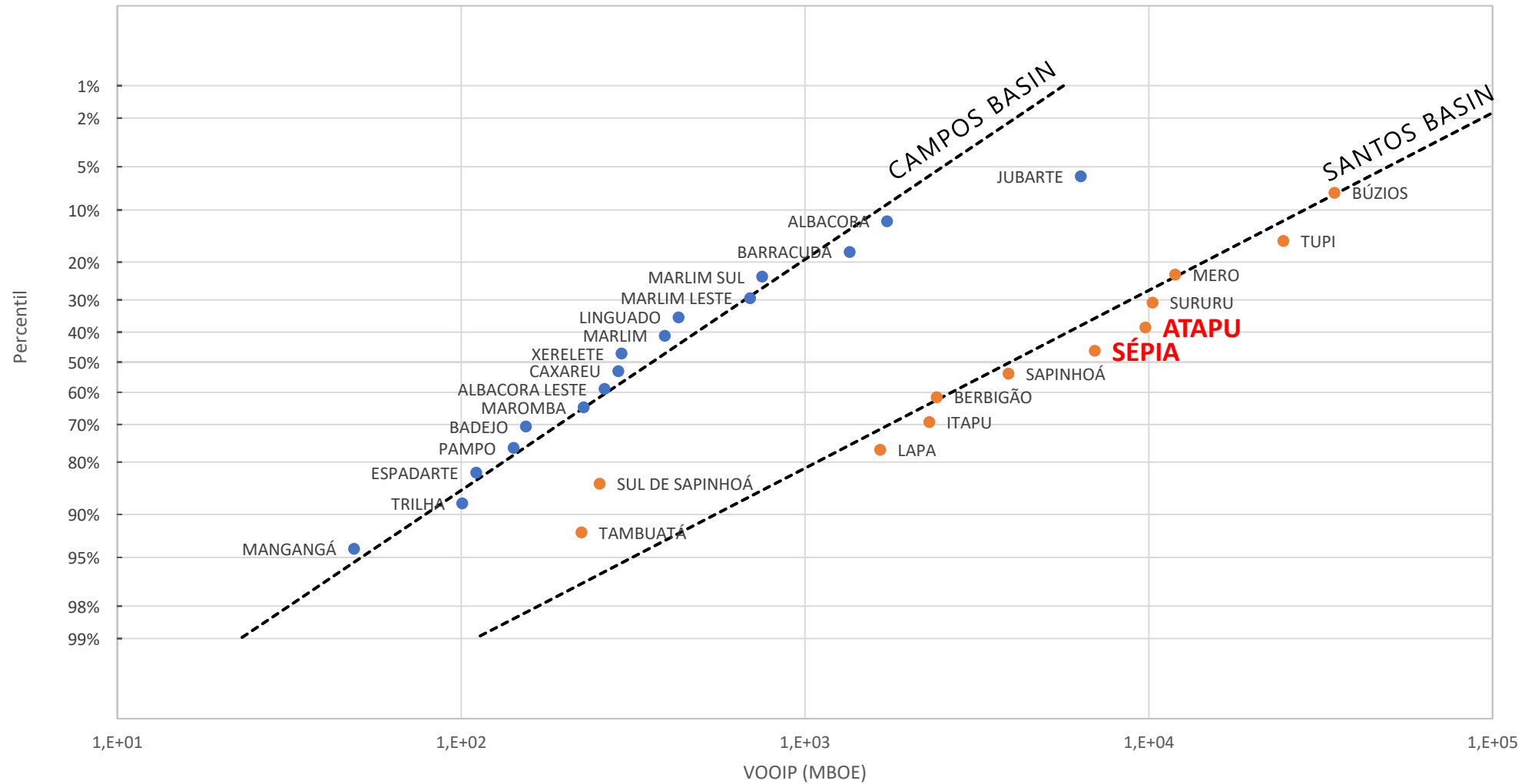
	2019	2021
Definition of participation in the public notice (Vrec ECO = 2,330 Mmboe)	X	V
Definition of compensation in public notice	X	V
Average compensation value estimated in the auction conditions	U\$ 13.7 Billion	U\$ 6.45 B. + Earn out
Compensation complementation clause (Earn out)	X	V
Presentation of the global production development strategy	X	V
Co-participation agreement defined in the notice	X	V
Atapu and Sepia with production module in operation	X	V

WELL PRODUCTION (> 50.000 Boe/d)

WELL	FIELD	PRODUCTION (boe/d)
7- BUZ -10-RJS	Búzios/Tambuata	66.562
7- BUZ -12-RJS	Tambuata	65.017
3-BRSA-1305A-RJS	Búzios /Tambuata	62.121
9- ATP -1-RJS	Tambuata	59.416
9- BUZ -3-RJS	Albacora	53.782
7- BUZ -31D-RJS	Berbigão	53.206



PRESALT FIELD SIZE DISTRIBUTION



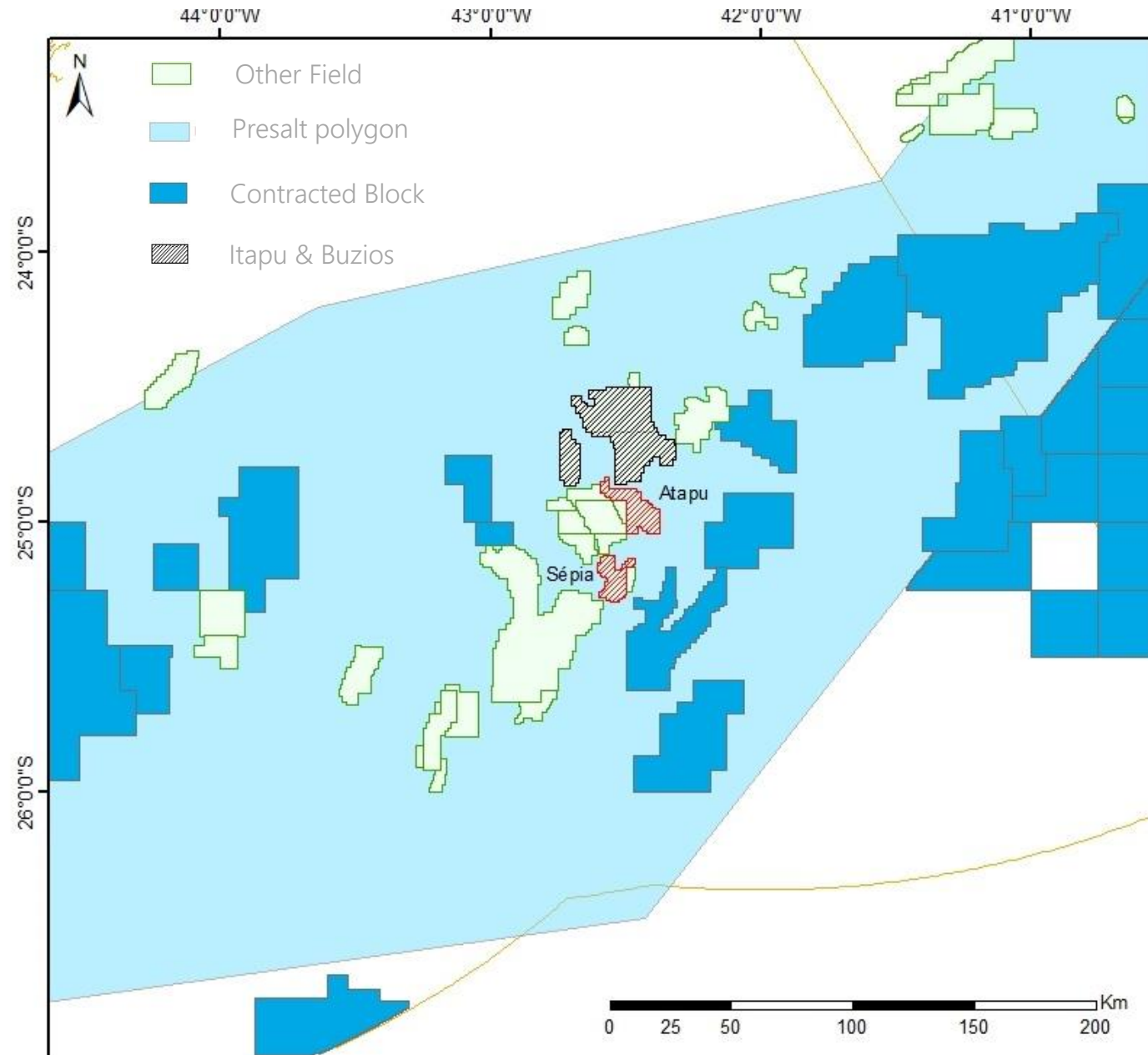
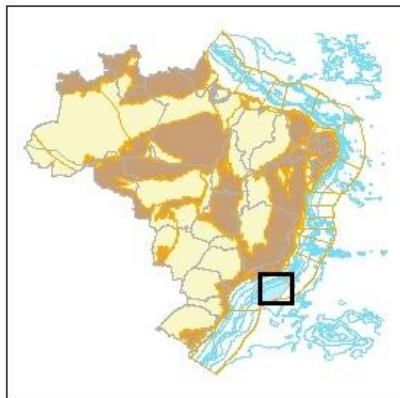
2nd TRANSFER OF RIGHTS

CNPE Resolution

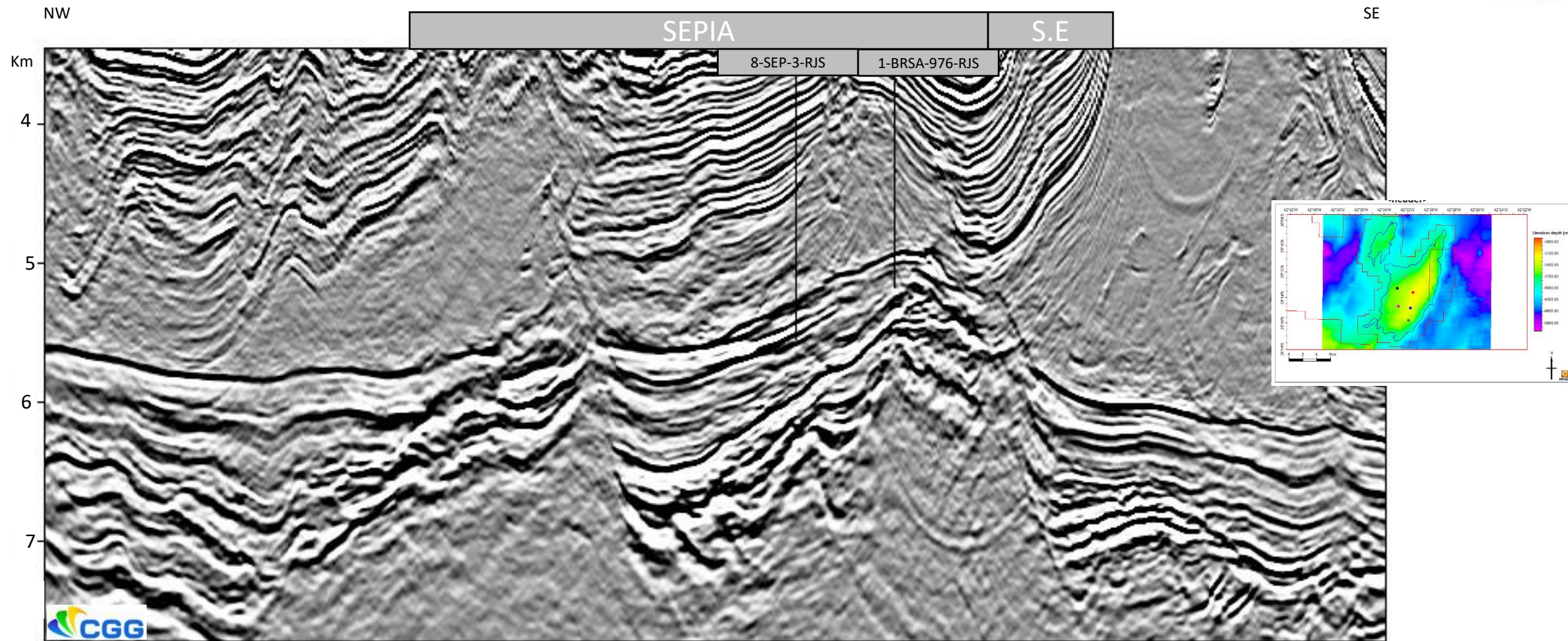
n° 06, 2019 / n° 03, 2021 / n° 05, 2021



Sepia & Atapu Field

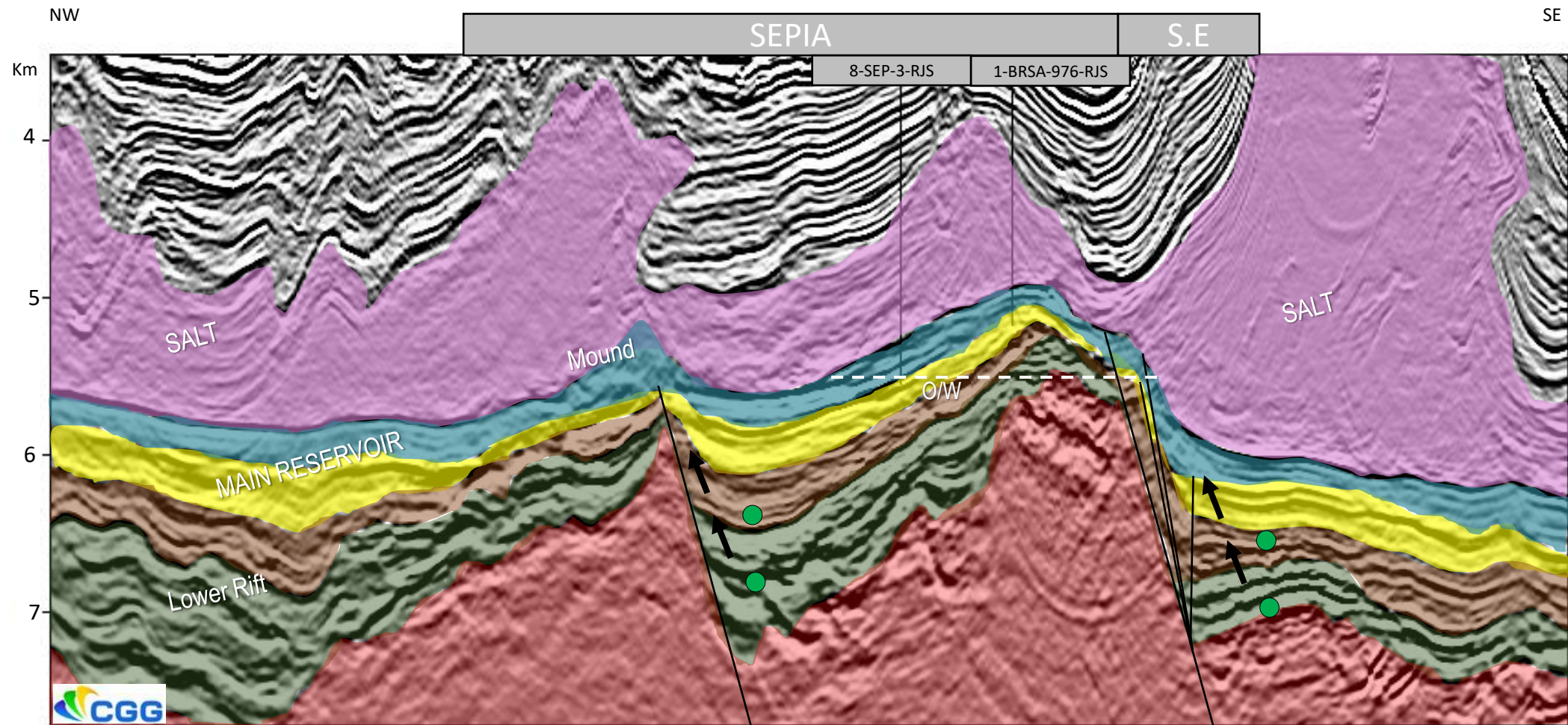


<http://rodadas.anp.gov.br/en/second-transfer-rights-surplus-production-sharing-bidding-round>

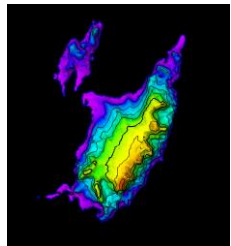


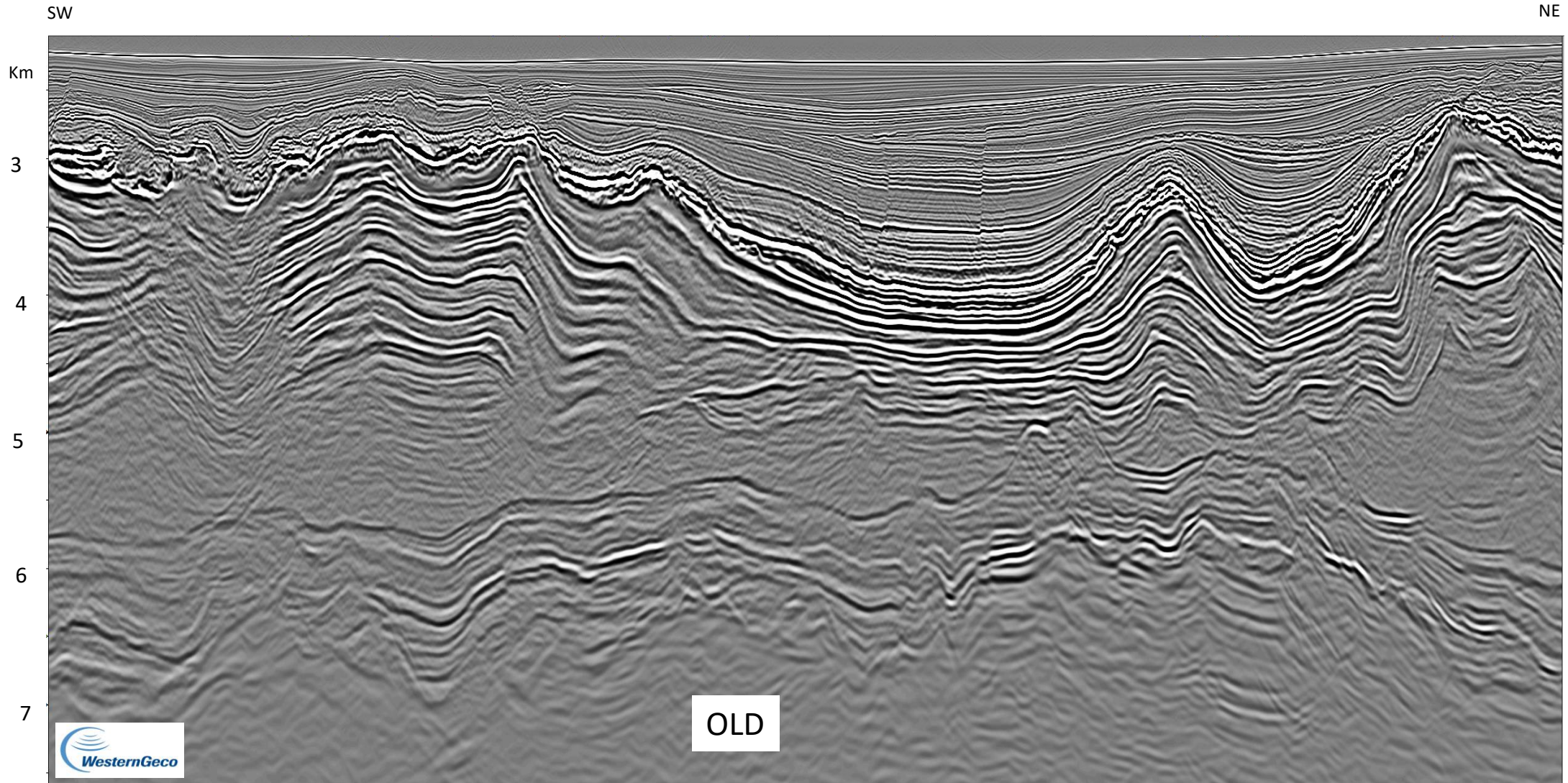
R0282_SANTOS_CONSTELLATION – Courtesy of CGG



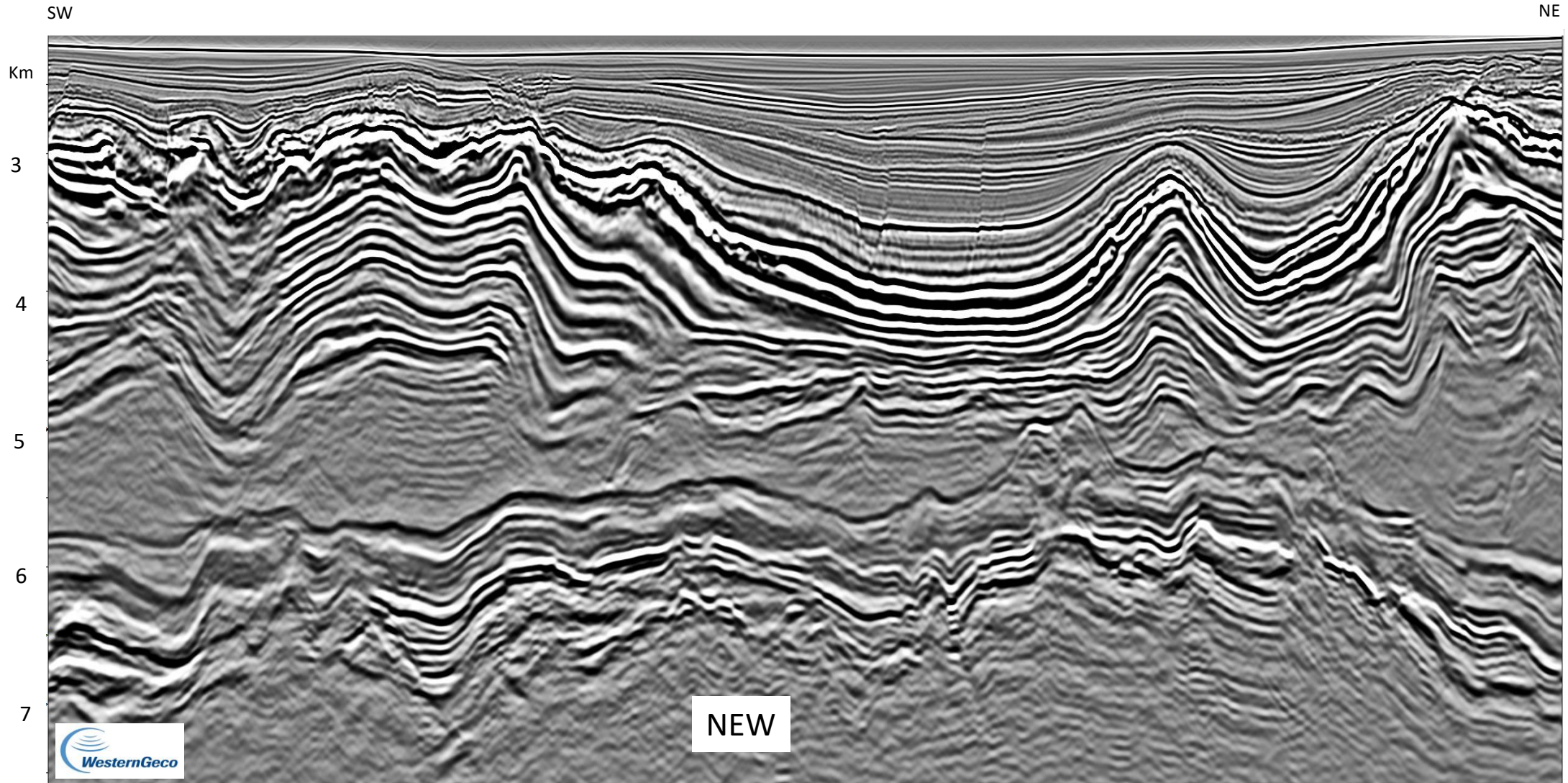


R0282_SANTOS_CONSTELLATION – Courtesy of CGG



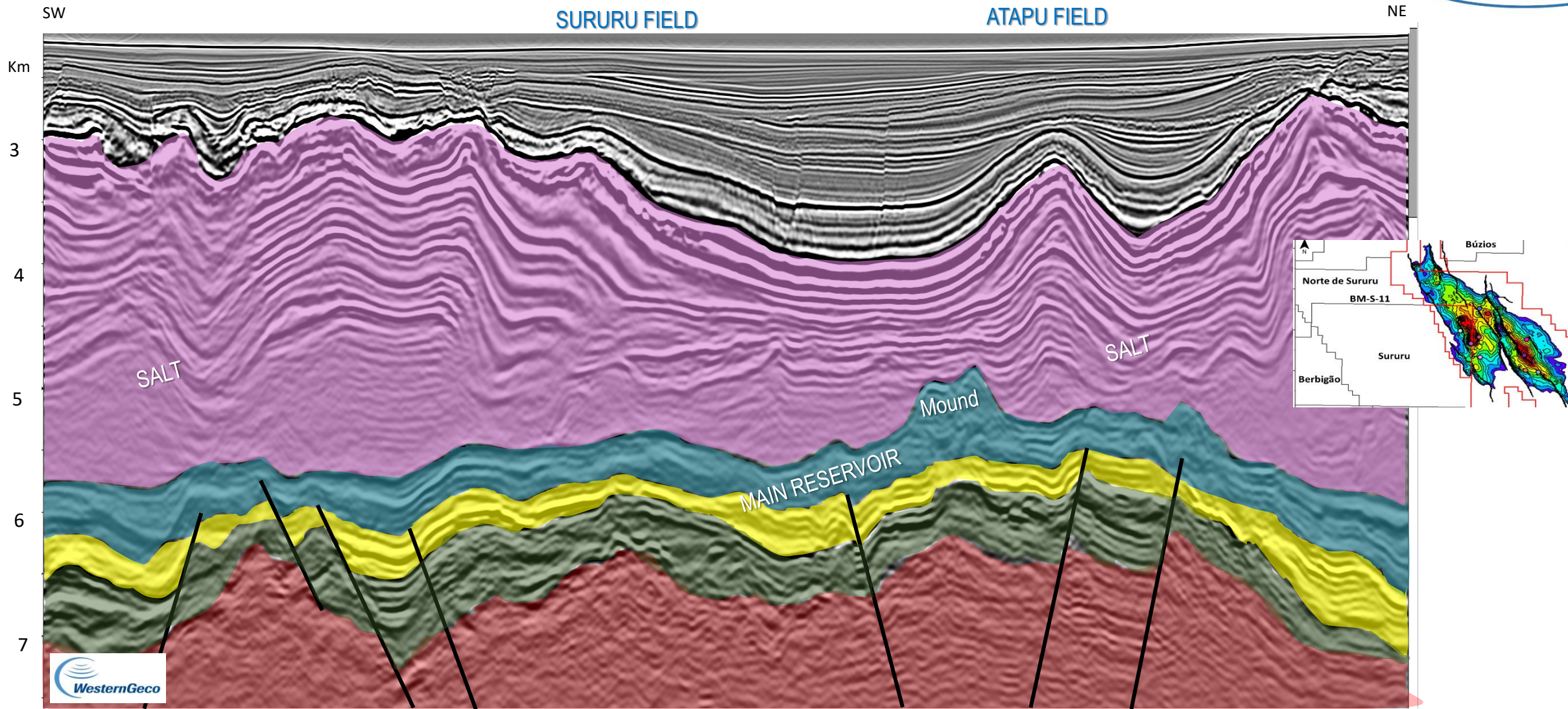


0258_3D_IARA_JUPITER (Legacy Data - 2014) – Courtesy of WesternGeco

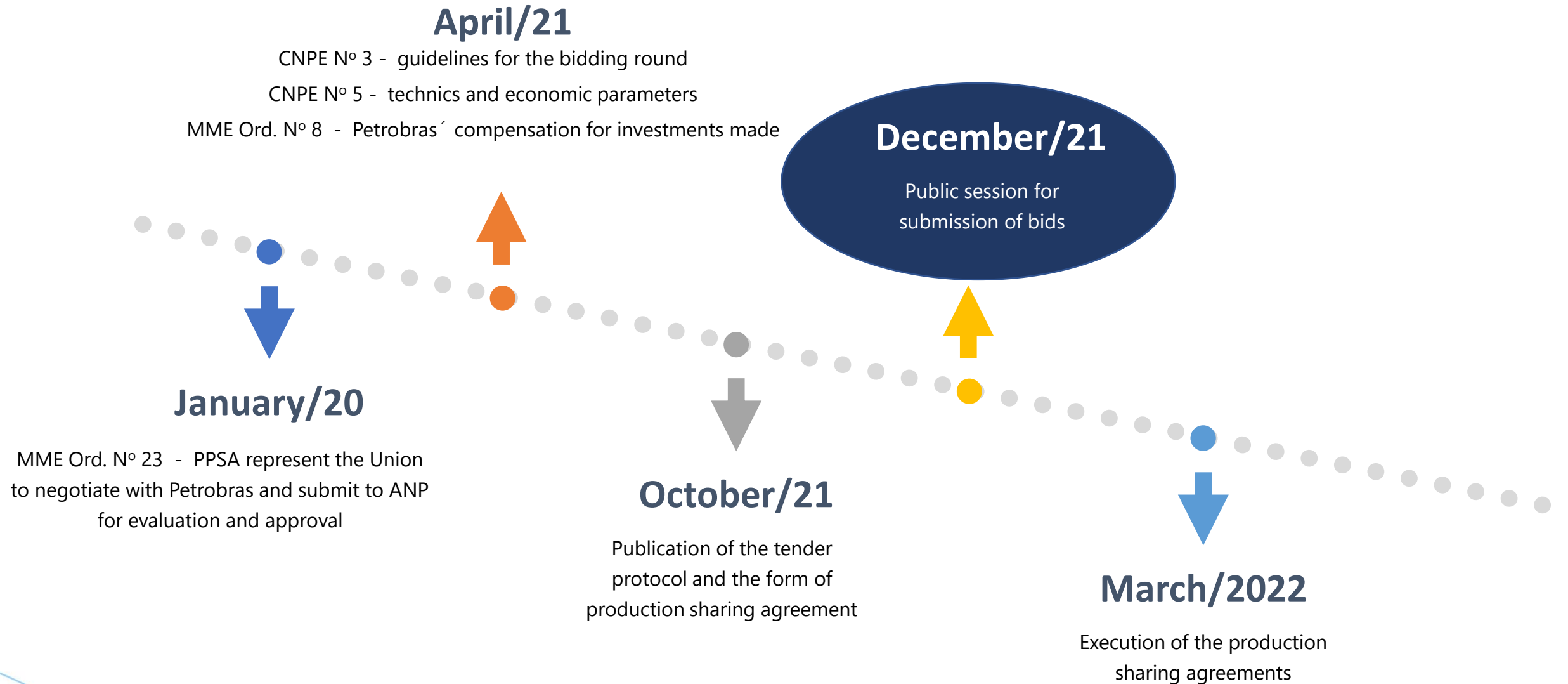


R0258_CENTRAL_SANTOS_MAZ_PH1 (2020) – Courtesy of WesternGeco

ATAPU FIELD



R0258_CENTRAL_SANTOS_MAZ_PH1 (2020) – Courtesy of WesternGeco

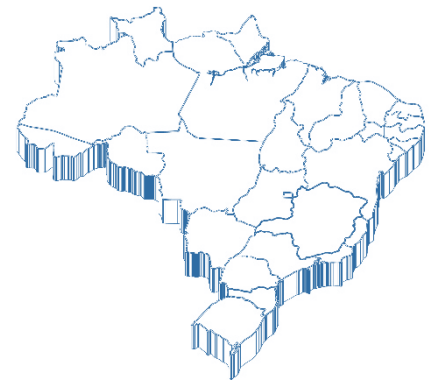


OUTLINE

2nd Transfer of Rights Surplus Volumes

17th Bidding Round

3rd Cycle of Open Acreage



17th BIDDING ROUND

CNPE Resolution

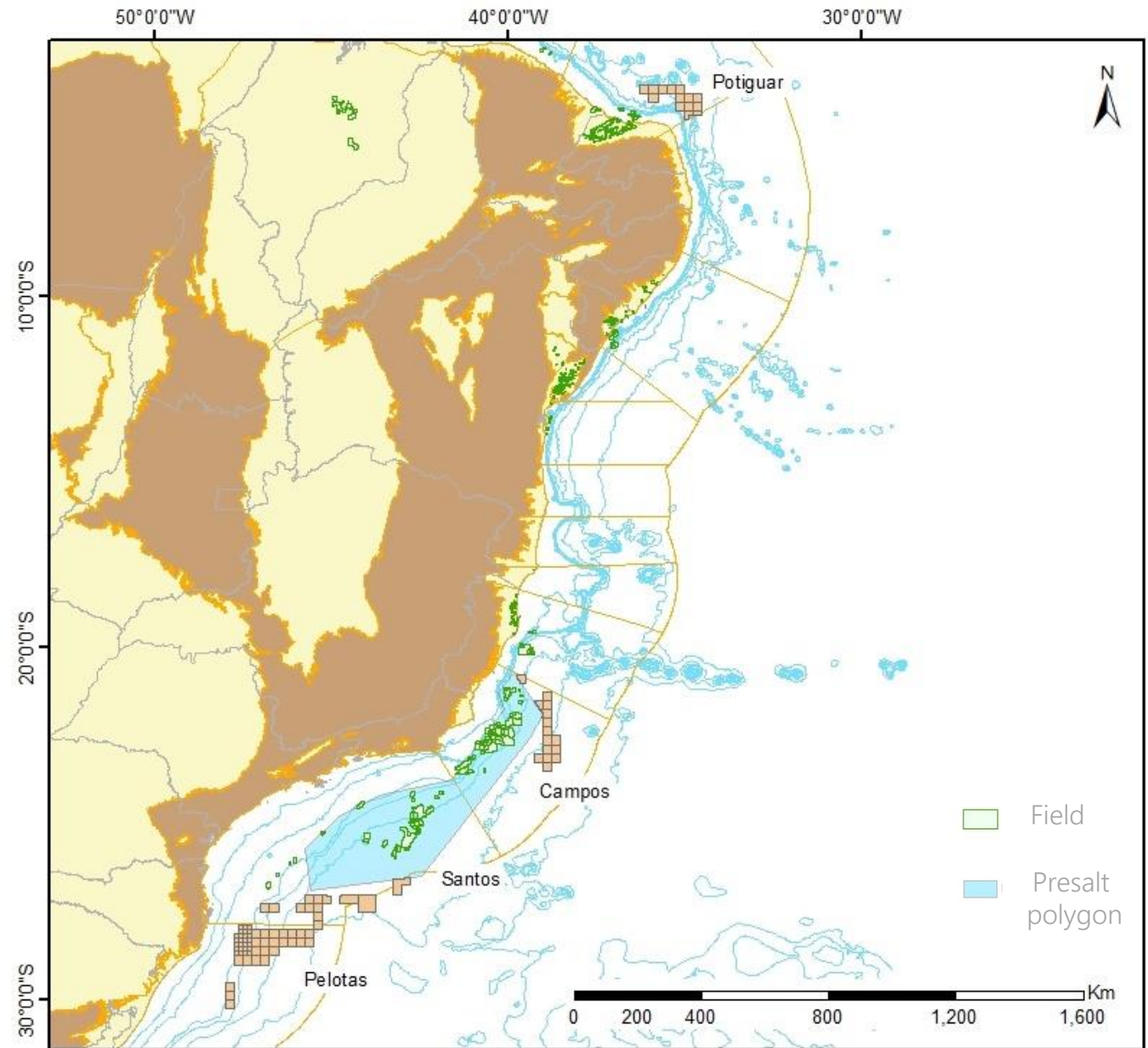
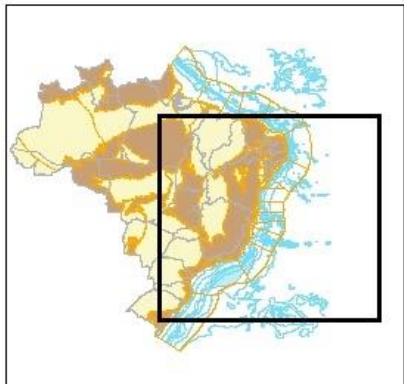
n° 17, 2017 / n° 23 & 24, 2019 / n° 11, 2021



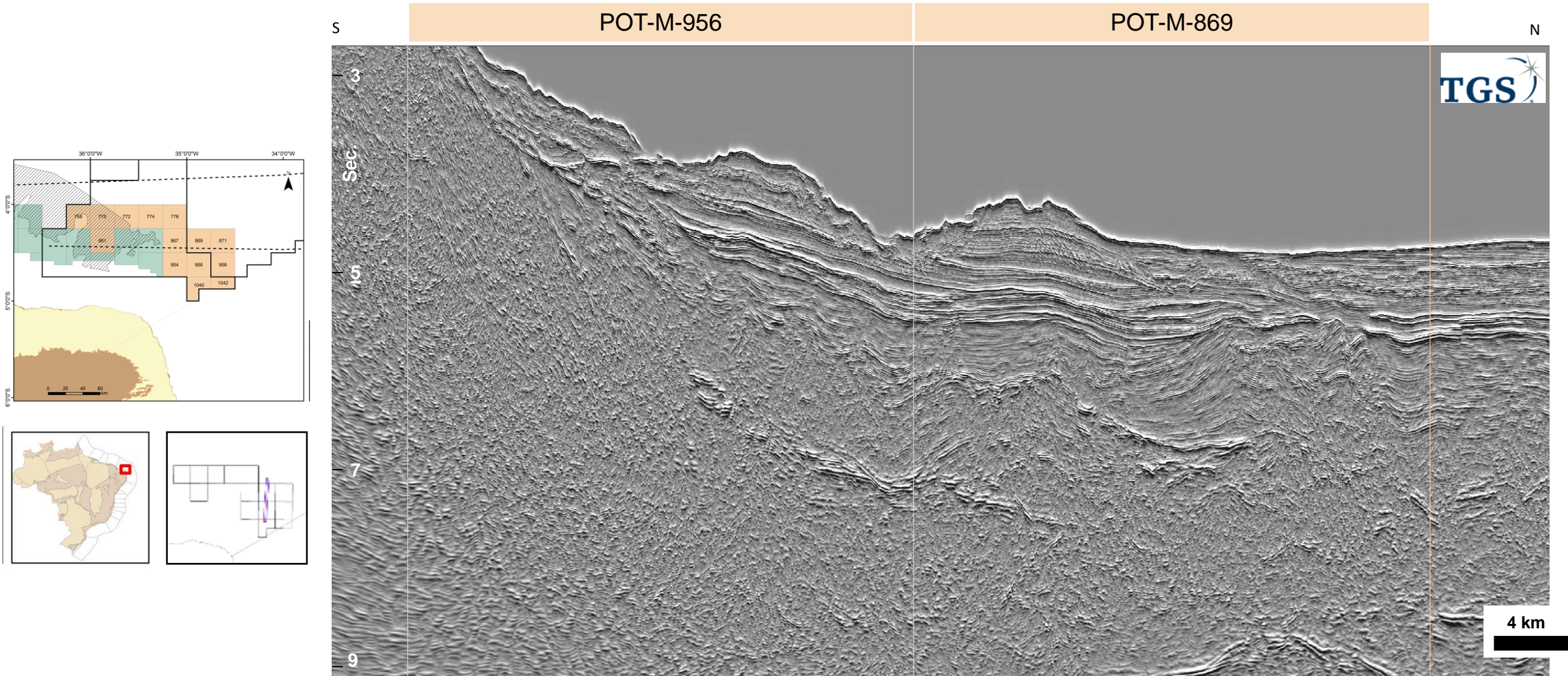
 TOTAL OF BLOCK ON OFFER (92)

Potiguar Basin (14) | Campos Basin (15)

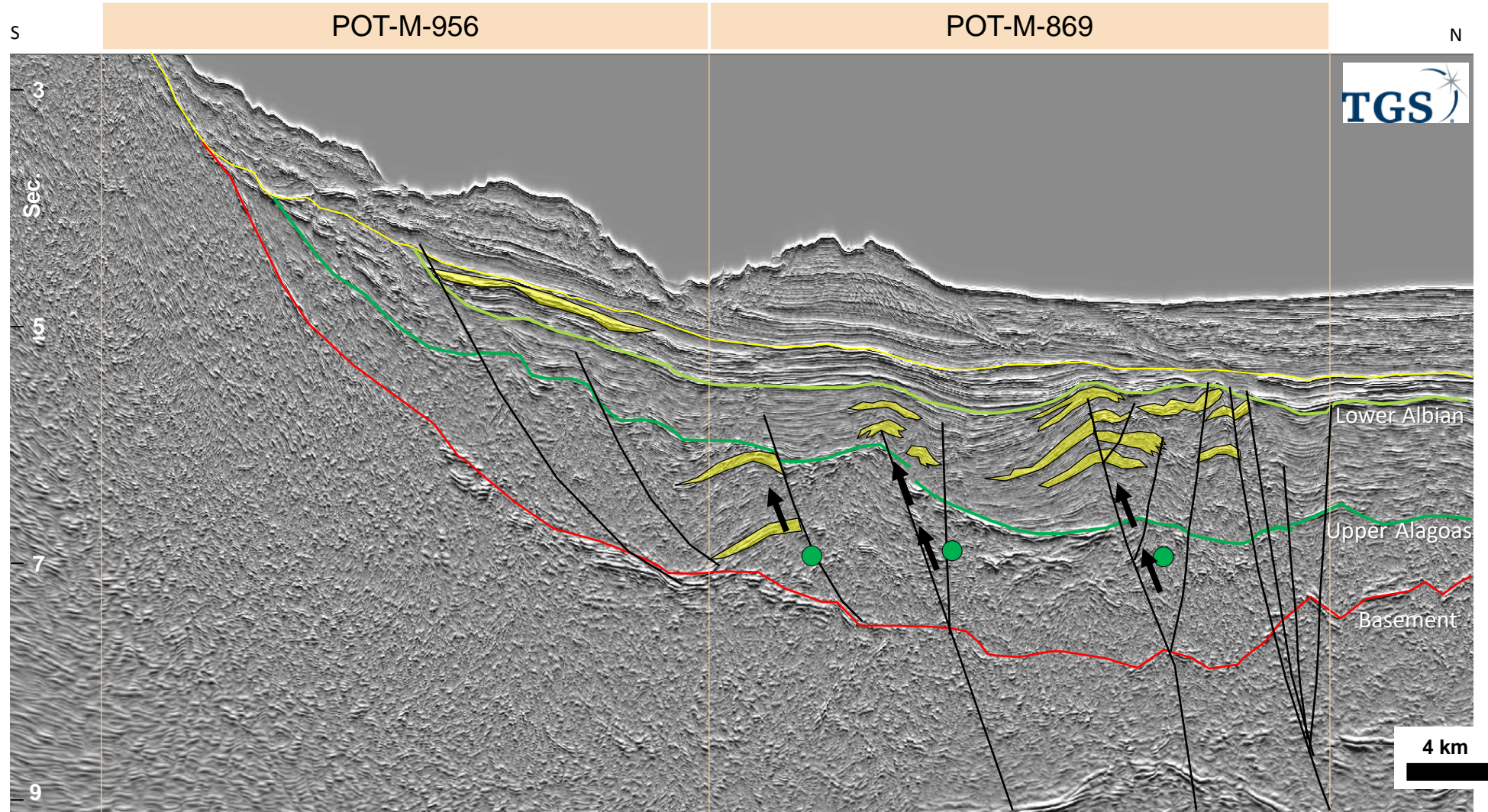
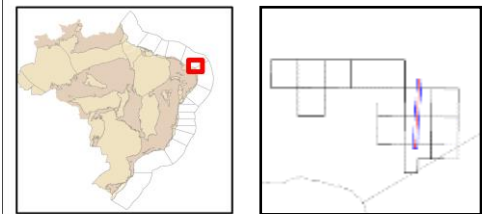
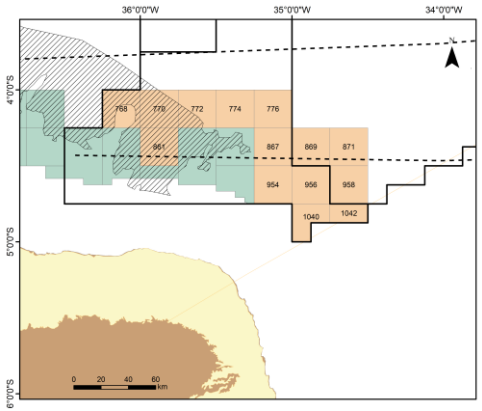
Santos Basin (13) | Pelotas Basin (50)



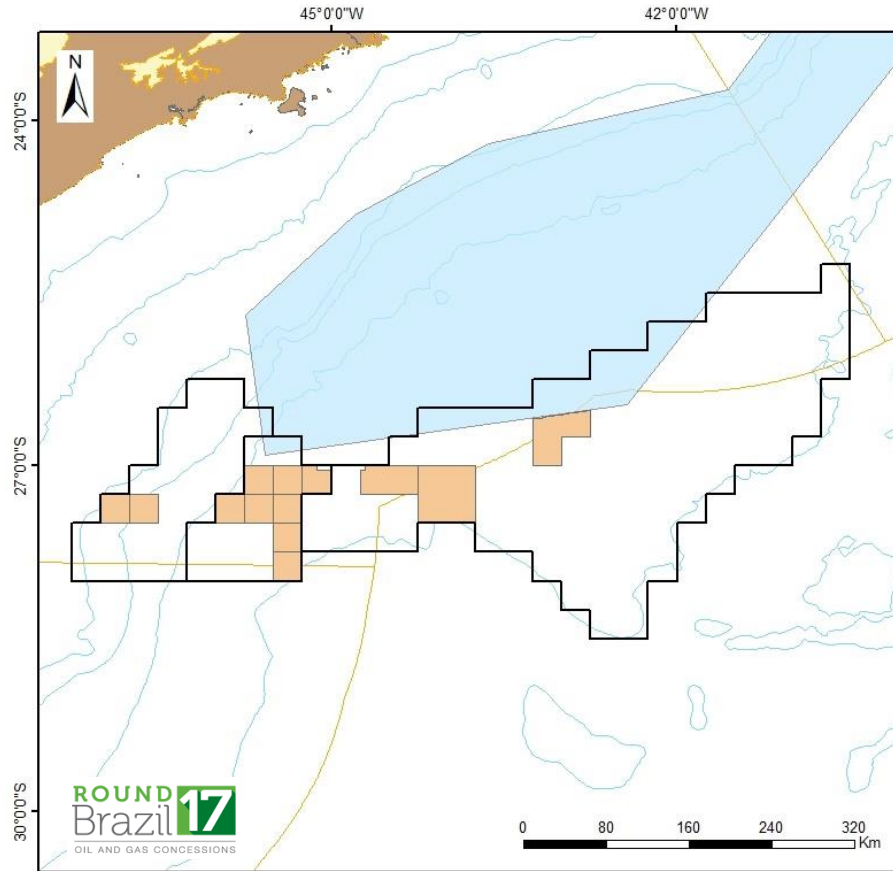
<http://rodadas.anp.gov.br/en/17th-bidding-round>



Seismic line 3785 – Survey 0257-PBP2-PSTM - Courtesy of TGS

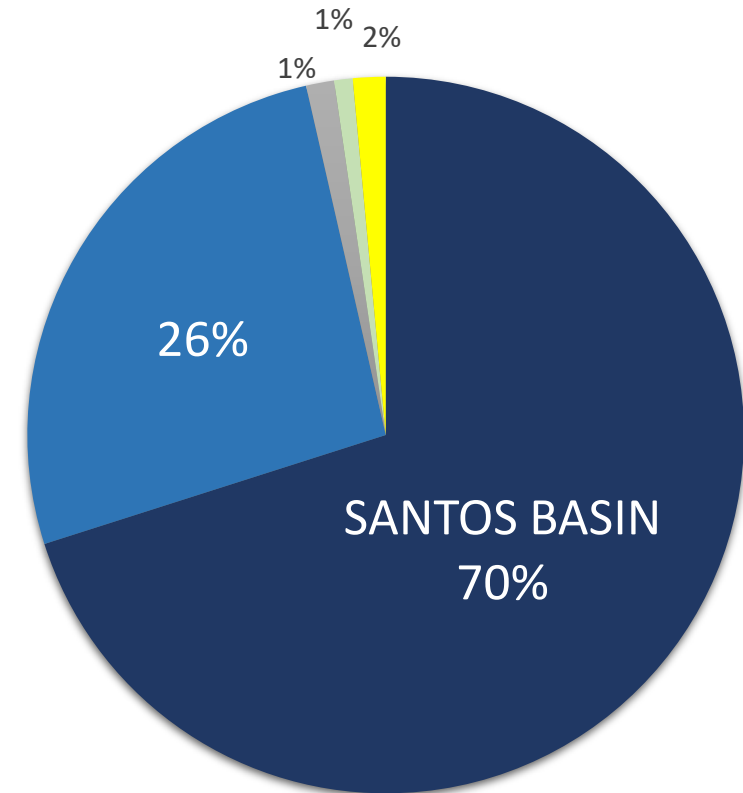


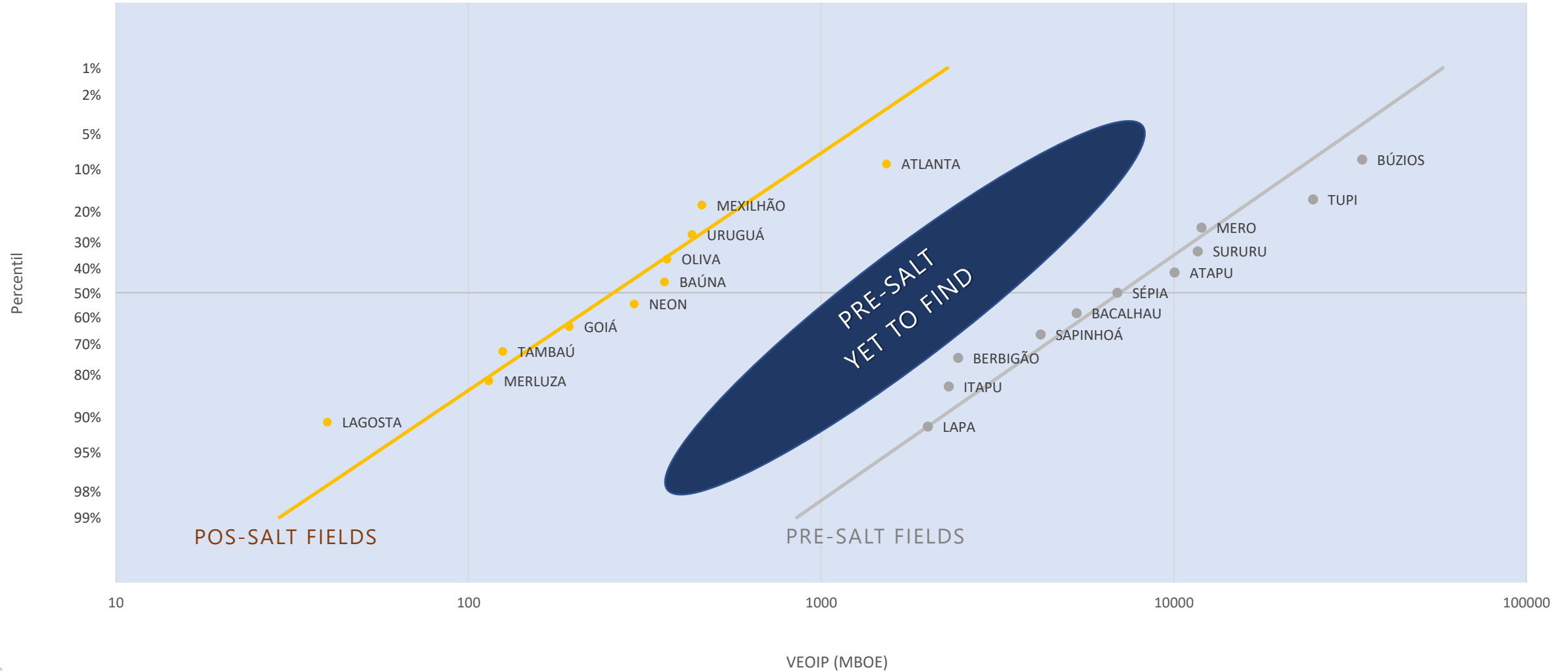
Seismic line 3785 – Survey 0257-PBP2-PSTM - Courtesy of TGS

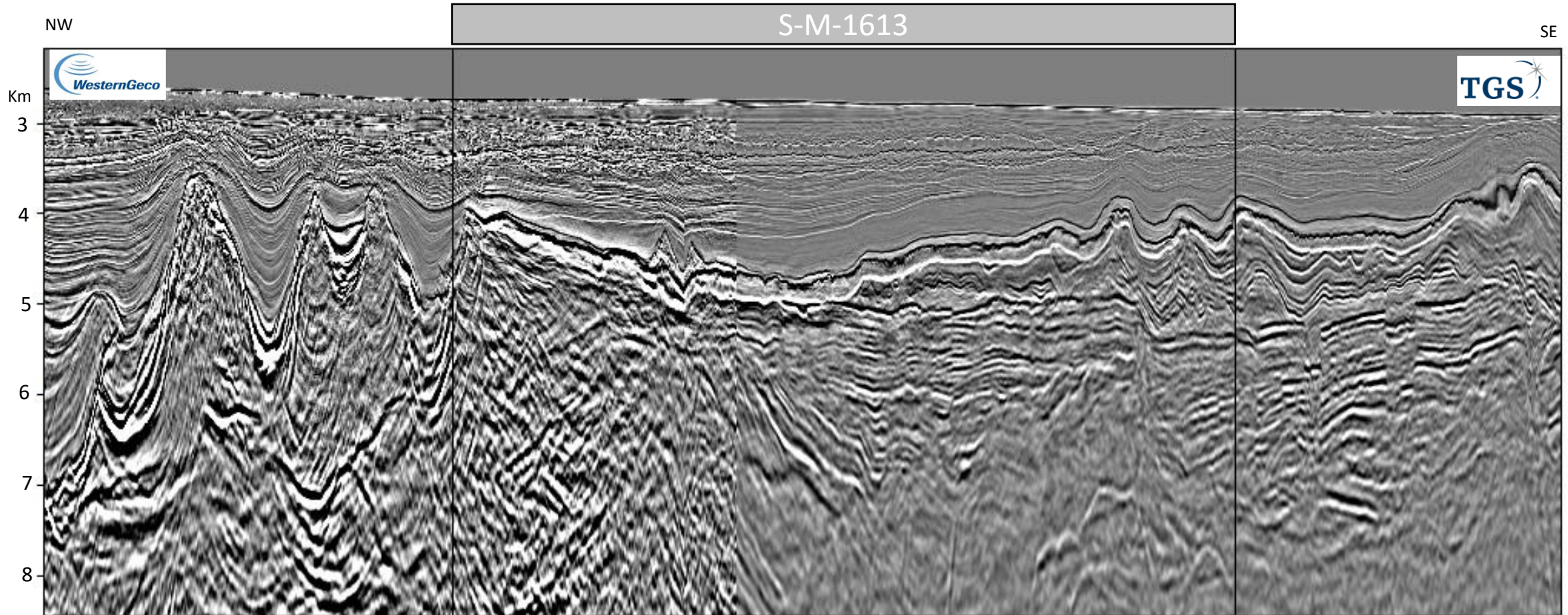


Brazil Oil Production (Mar./21)

■ Santos ■ Campos ■ Potiguar ■ Recôncavo ■ Others





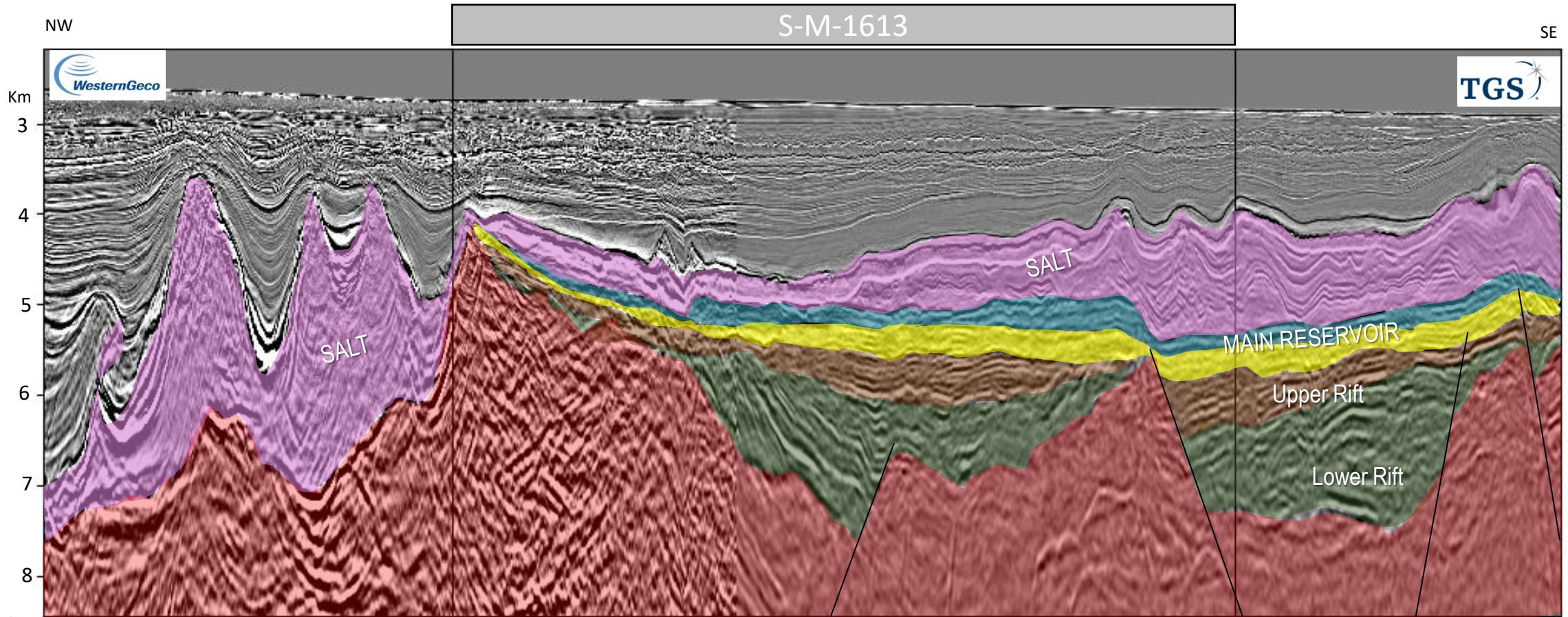


R0258_2D_SPEC_PSDM_NTTI_BM_S – Courtesy of WesternGeco and TGS

0327_3D_SP2 (Fast Track) – “Santos Phase 3” – Courtesy TGS



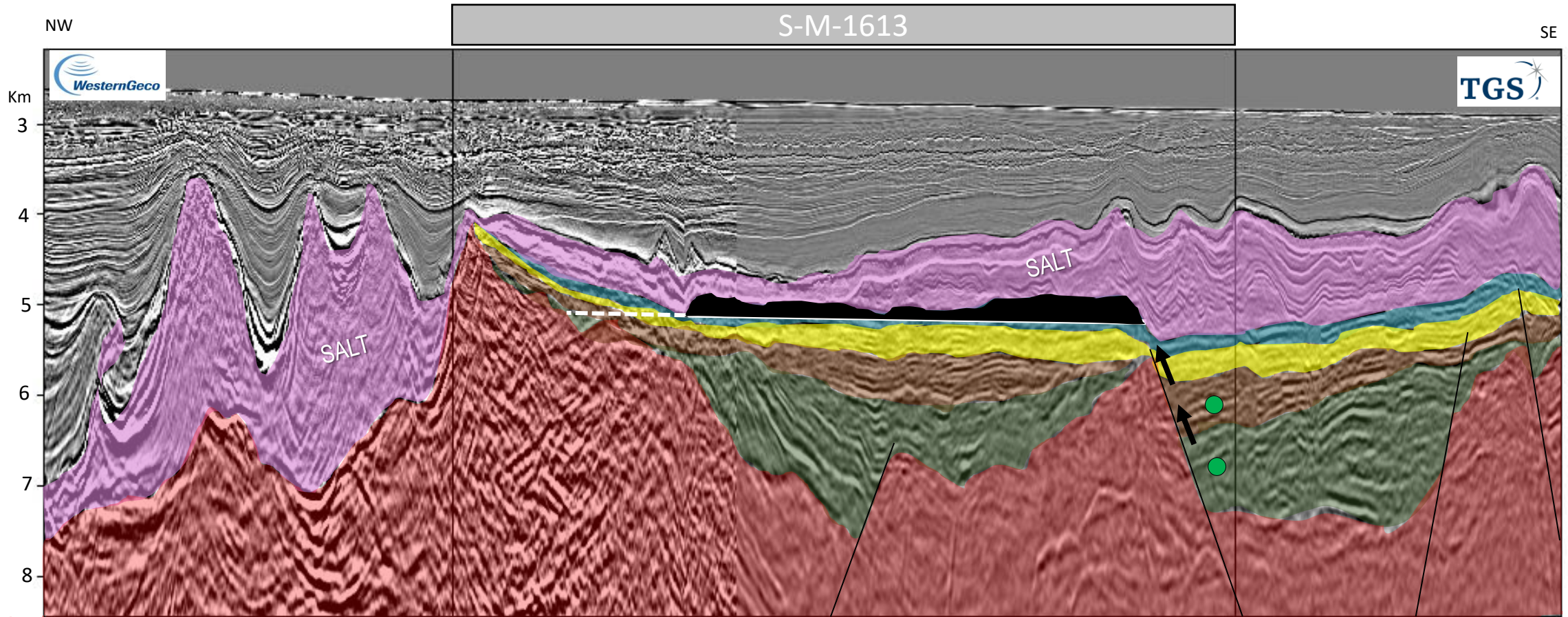
SANTOS BASIN - BLOCK S-M-1613



R0258_2D_SPEC_PSDM_NTTI_BM_S – Courtesy of WesternGeco and TGS

0327_3D_SP2 (Fast Track) – “Santos Phase 3” – Courtesy TGS

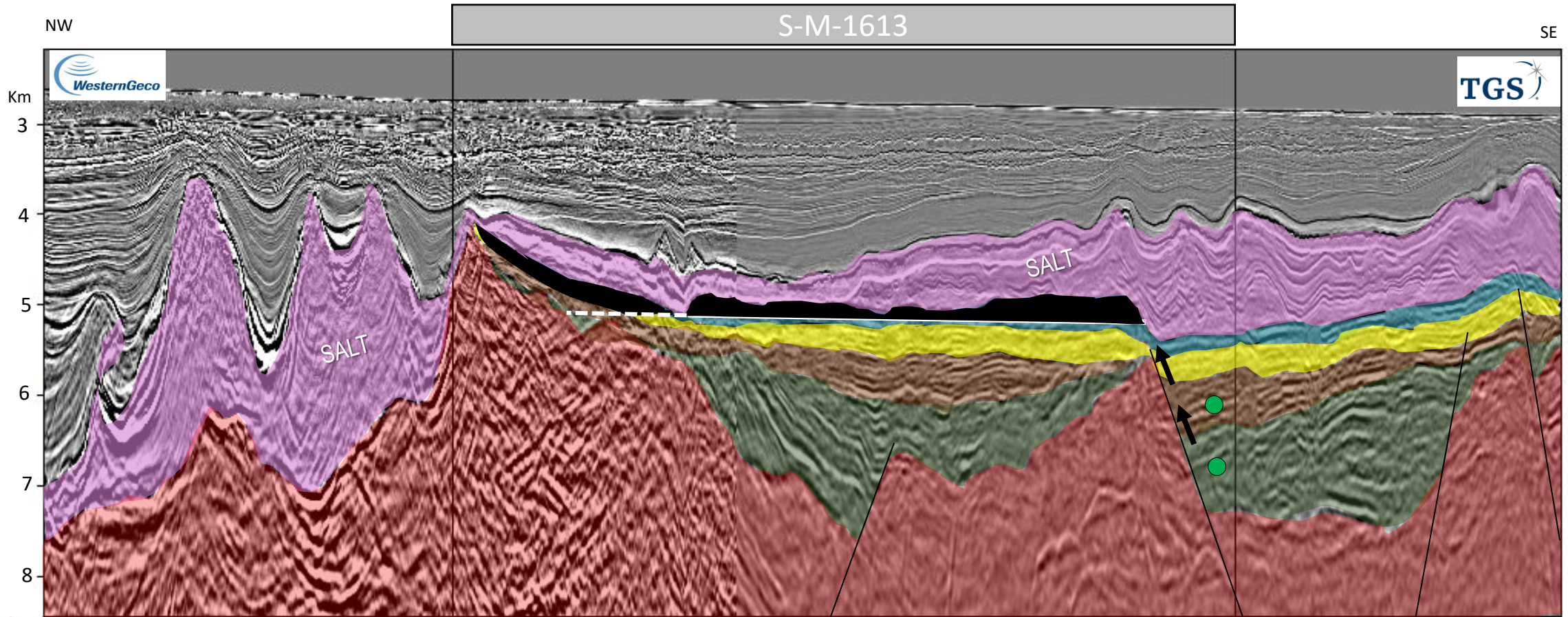




R0258_2D_SPEC_PSDM_NTII_BM_S – Courtesy of WesternGeco and TGS

0327_3D_SP2 (Fast Track) – “Santos Phase 3” – Courtesy TGS



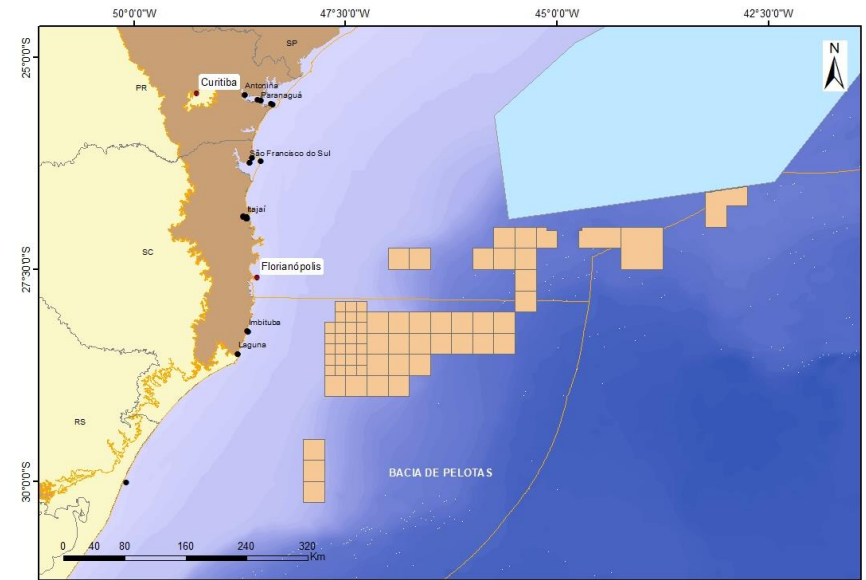
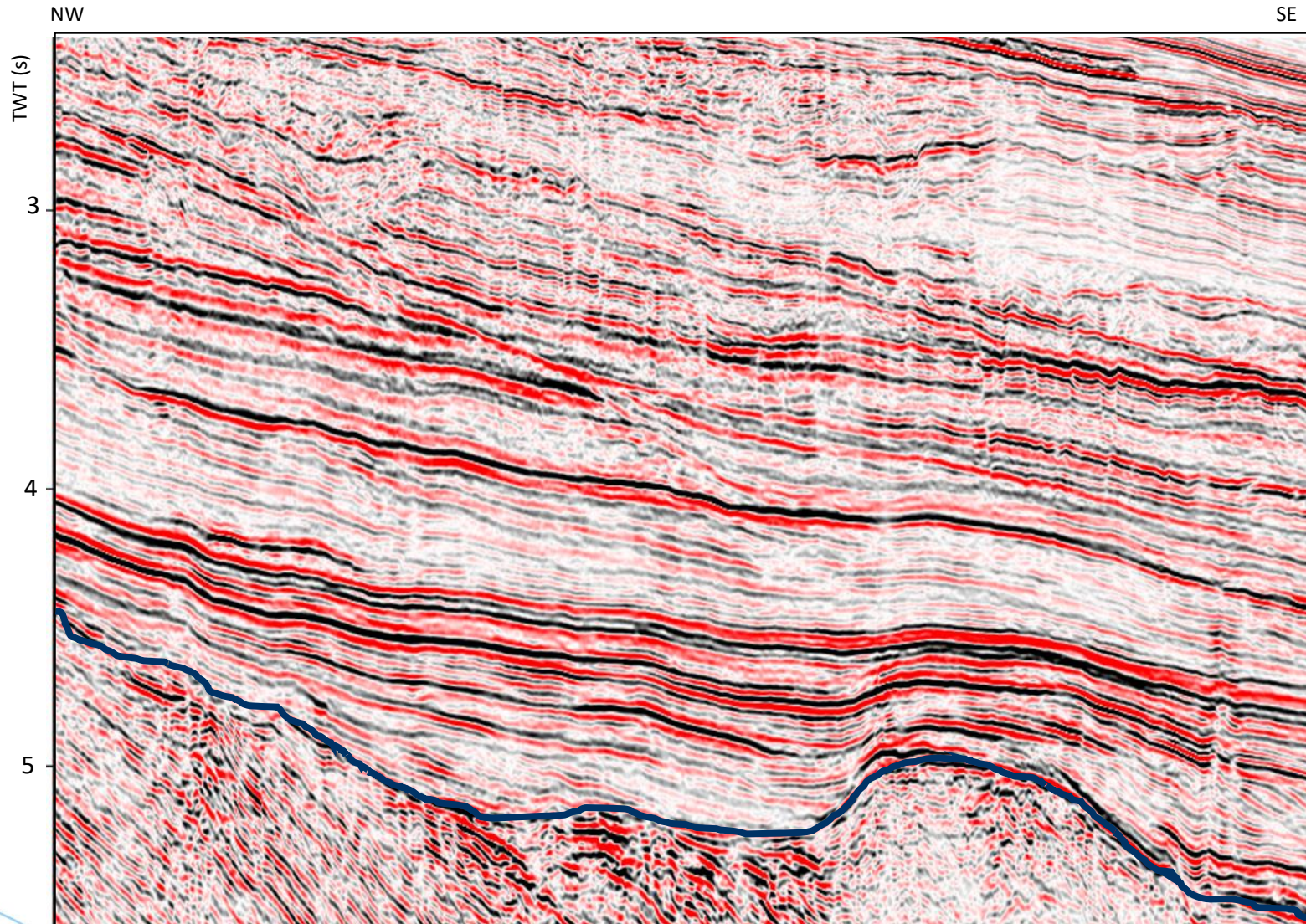


R0258_2D_SPEC_PSDM_NTII_BM_S – Courtesy of WesternGeco and TGS

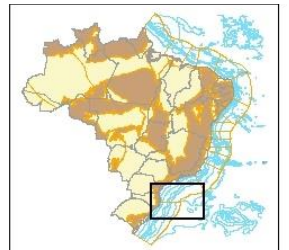
0327_3D_SP2 (Fast Track) – “Santos Phase 3” – Courtesy TGS



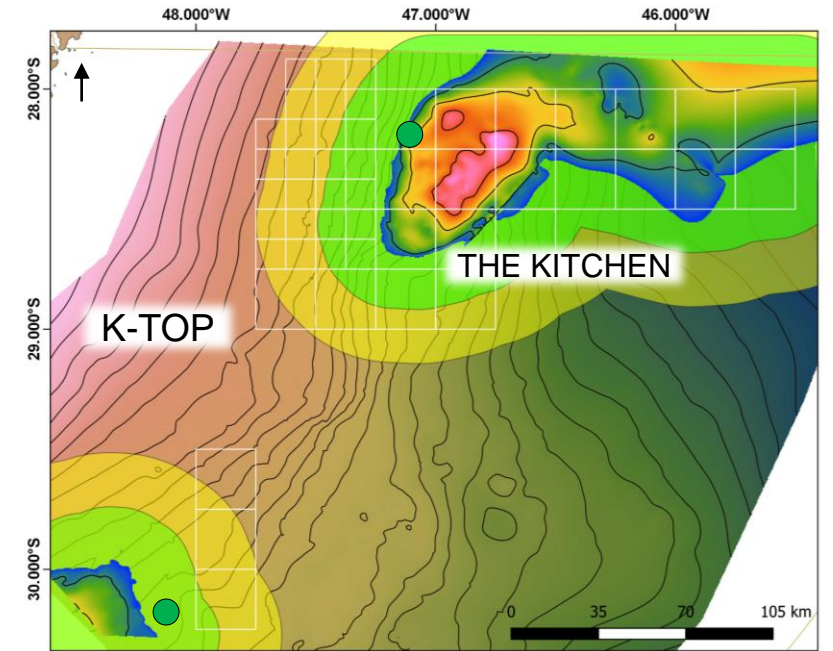
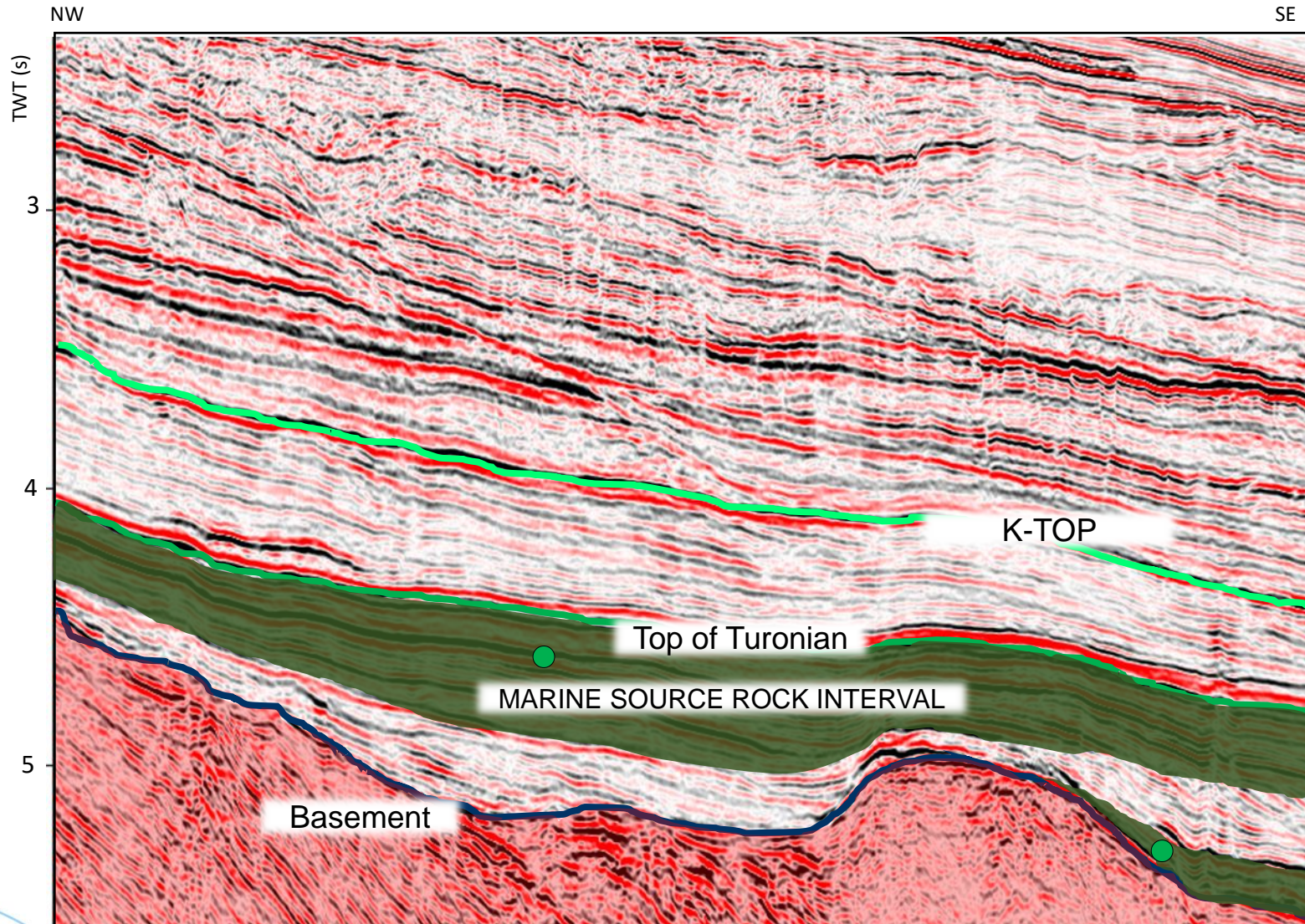
PETOTAS BASIN



*Right in front of the Sates
of Santa Catarina
and Rio Grande do Sul
High Human Development
Index Region*



PETOTAS BASIN



ISOPACH MAP – TIME (ms)

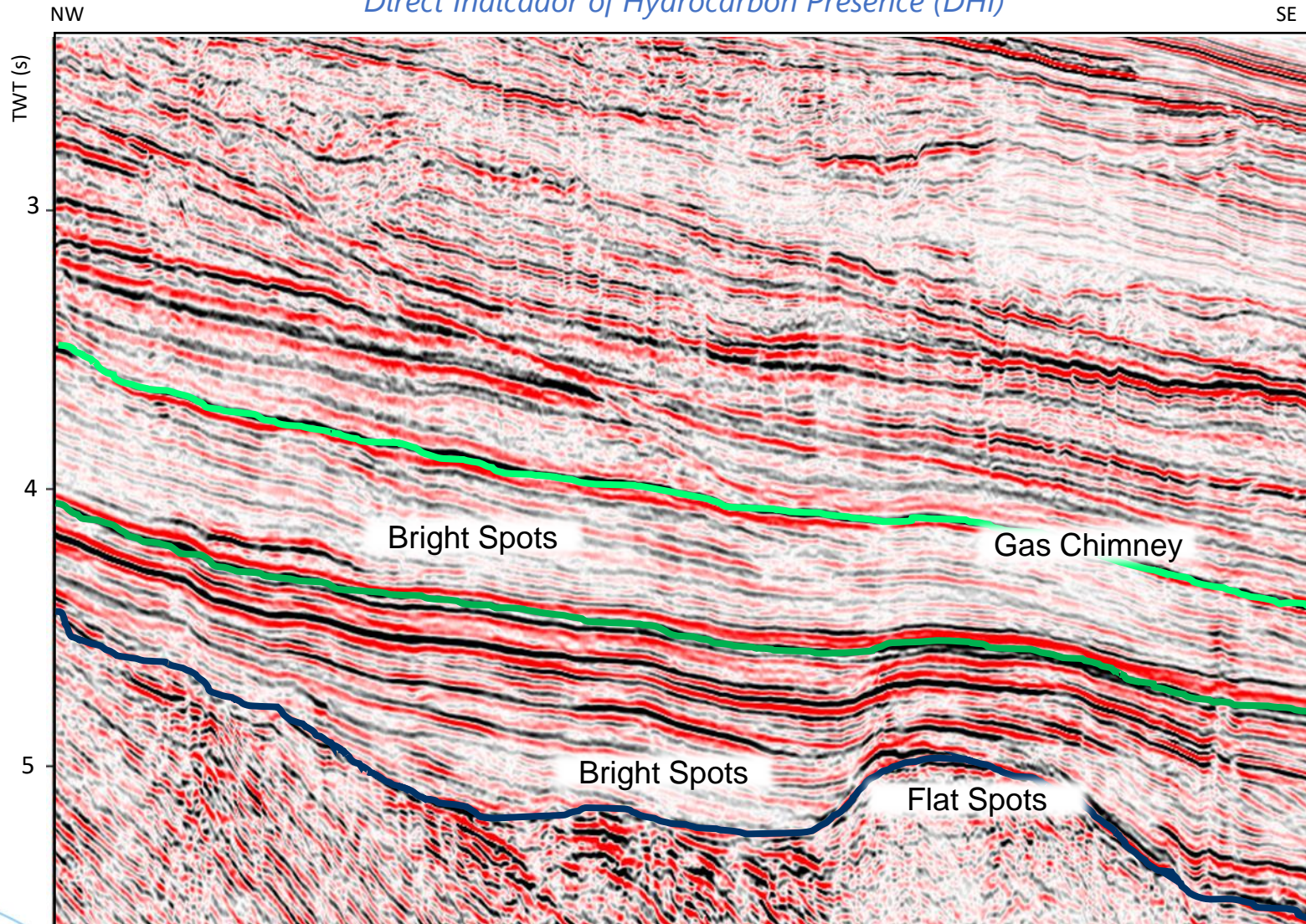


Estrutural Map - K-TOP TIME (ms)



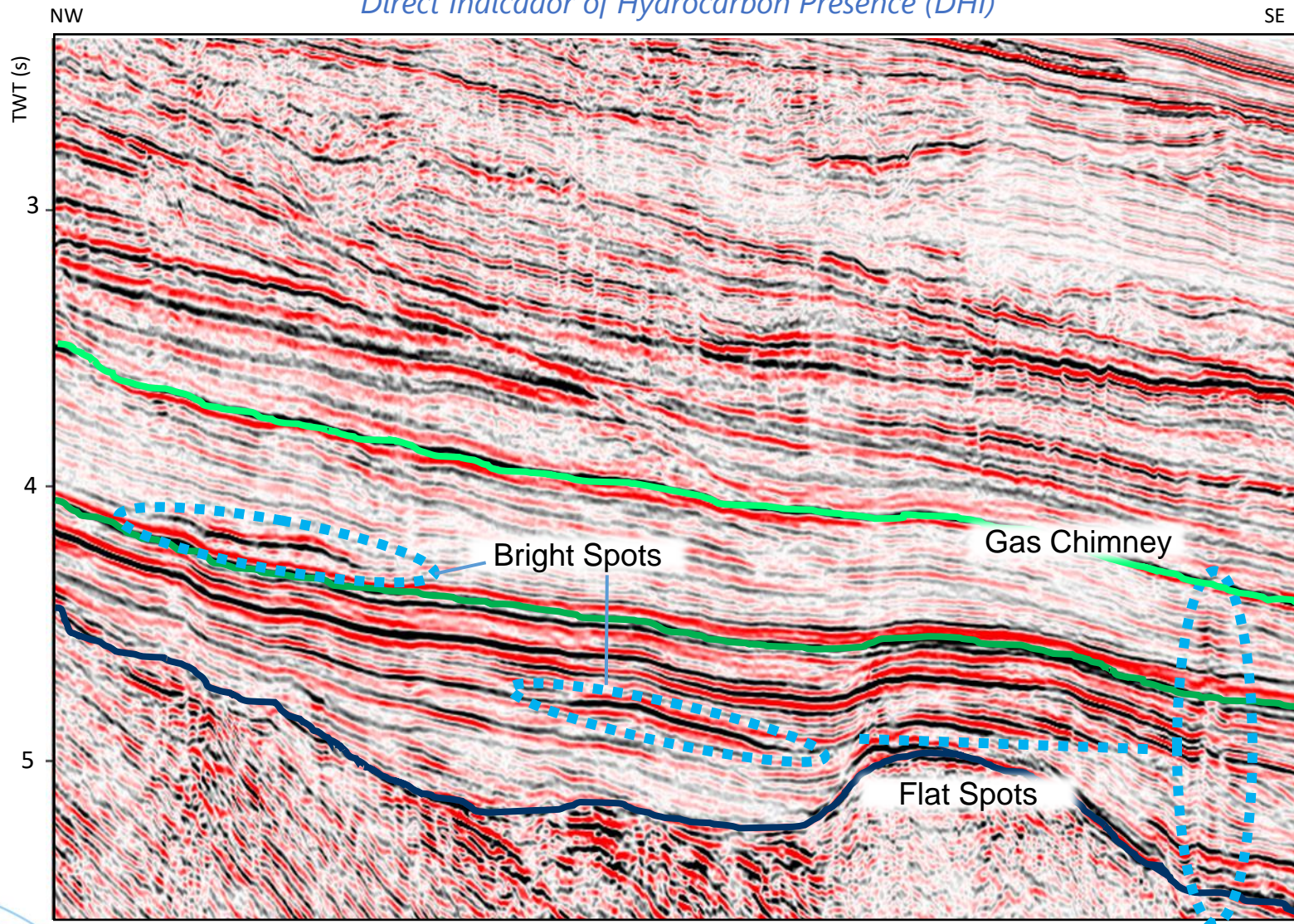
Survey 0231_PELOTAS_4A - L0231-0477 - Public

Direct Indicator of Hydrocarbon Presence (DHI)

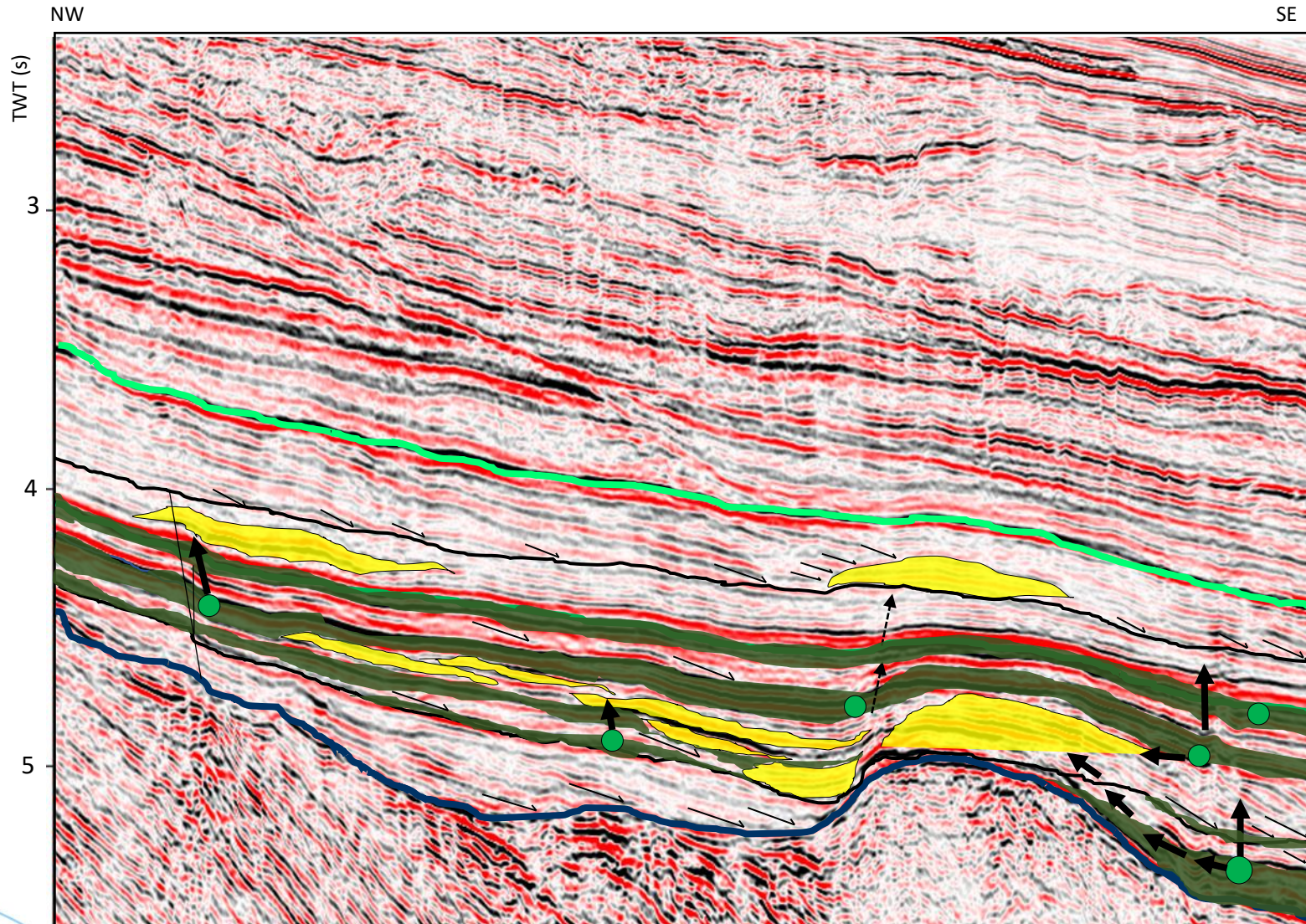


DHI


Direct Indicator of Hydrocarbon Presence (DHI)



DHI



Survey 0231_PELOTAS_4A - L0231-0477 - Public

 Sandstone Turbidites

RIGHT GEOLOGICAL AND
GEOGRAPHICAL LOCATION

Sandstone Turbidites

Below Paleo Slope

Interbedded with Source Rock

Frontier Play with DHI

Never Drilled in Deep Water

Right in Front of SC and RS



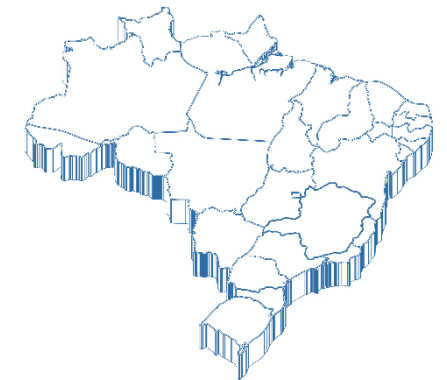
<http://rodadas.anp.gov.br/en/17th-bidding-round/indicative-schedule>

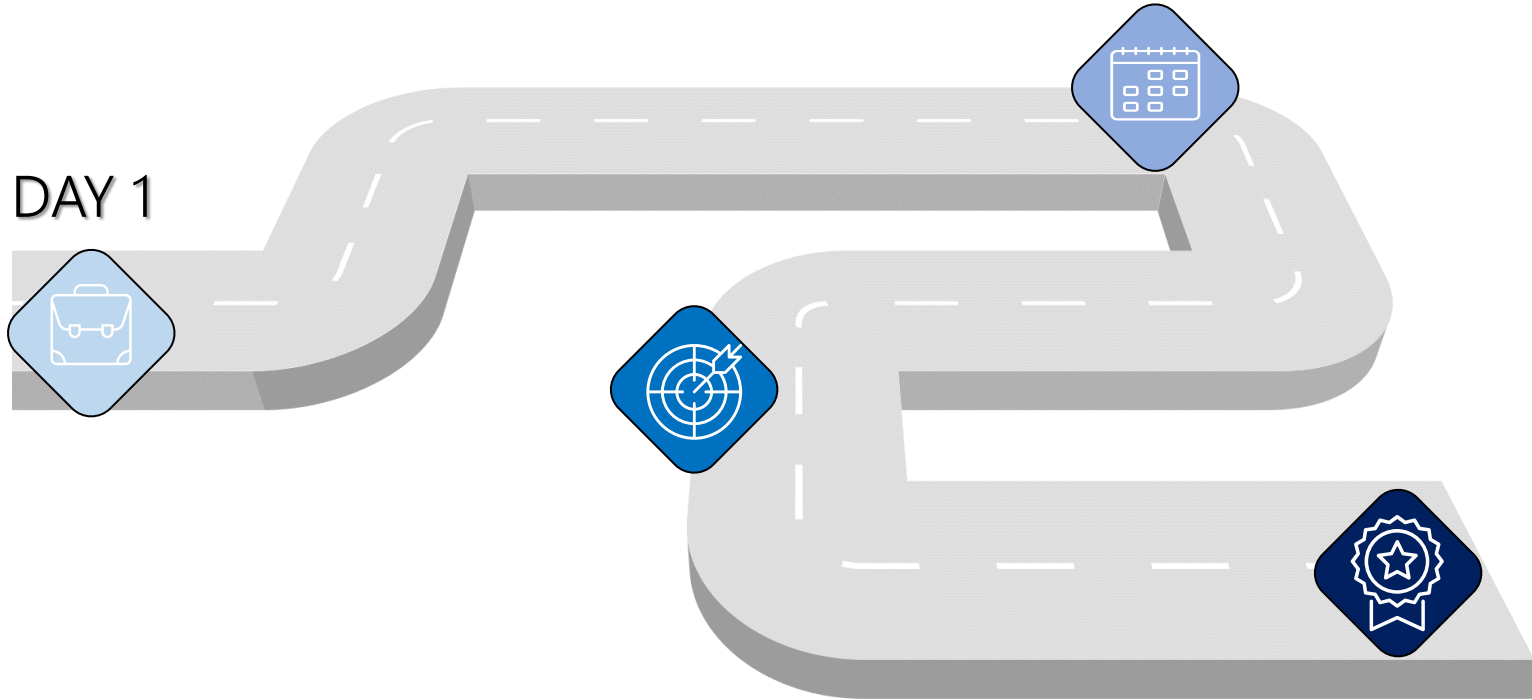
OUTLINE

💧 2nd Transfer of Rights Surplus Volumes

💧 17th Bidding Round

💧 3rd Cycle of Open Acreage





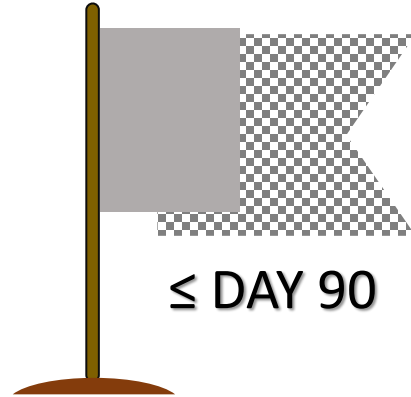
- ◆ **Opening of a cycle**
Approval of the **declaration of sector of interest** accompanied by the bid bond
- ◆ **Registration**
Deadline for tax payment and registration in the open cycle
- ◆ **Declaration of interest**
Deadline of interest in other sectors and submission of bid bond
- ◆ **Public session**
Day for submission of bids



COMPANIES START THE PROCESS

THE ENTIRE CYCLE WILL BE COMPLETED IN UP TO 90 DAYS

DECLARATION OF INTEREST ≠ NOMINATION



[ANP Resolution N°. 837/2021](#)

Establishes the procedure for indicating areas to be studied by ANP.

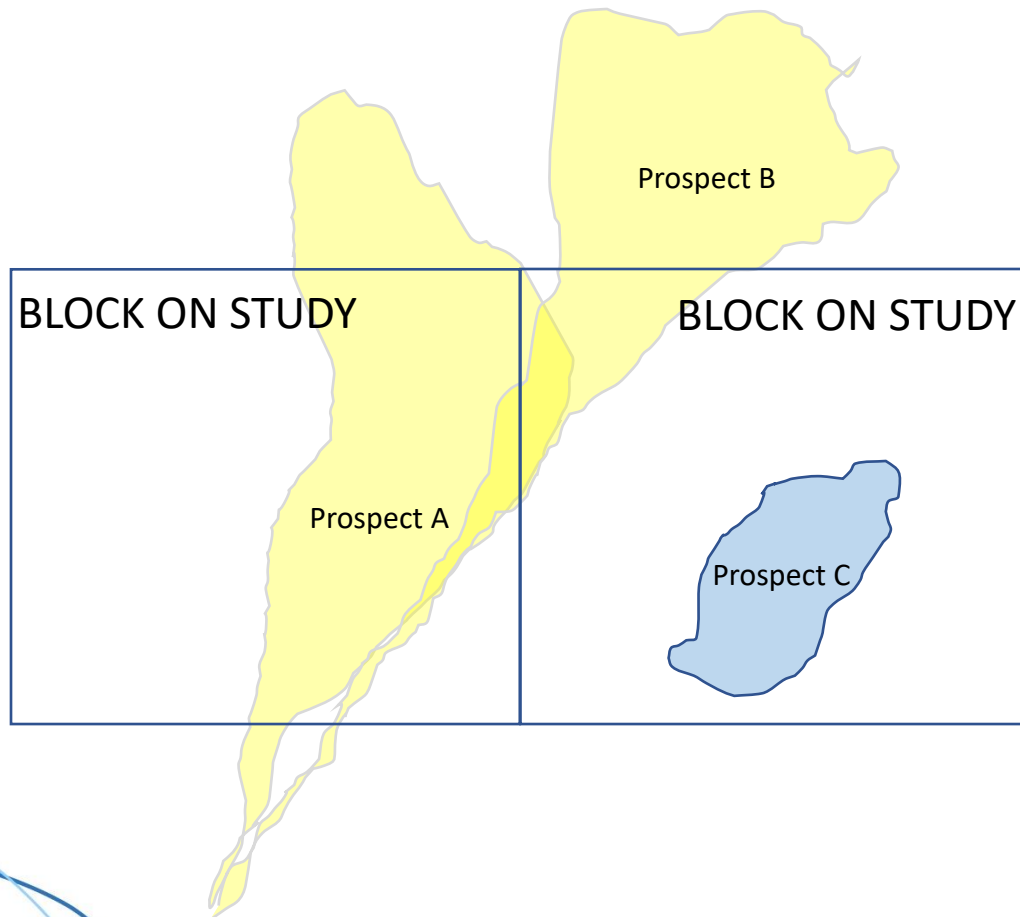
- The NOMINATION can be made by any legal entity in the oil and natural gas sector, so that ANP will study the possibility of offering it in a future bidding round.
- The NOMINATION is confidential.
- Block NOMINATION => Superintendence of Geological and Economic Assessment [SAG].
- Field NOMINATION => Superintendence of Development and Production [SDP].

<https://www.gov.br/anp/pt-br/assuntos/exploracao-e-producao-de-oleo-e-gas/estudos-geologicos-e-geofisicos/nominacao>

<https://www.in.gov.br/en/web/dou/-/resolucao-anp-n-837-de-18-de-janeiro-de-2021-299559764>

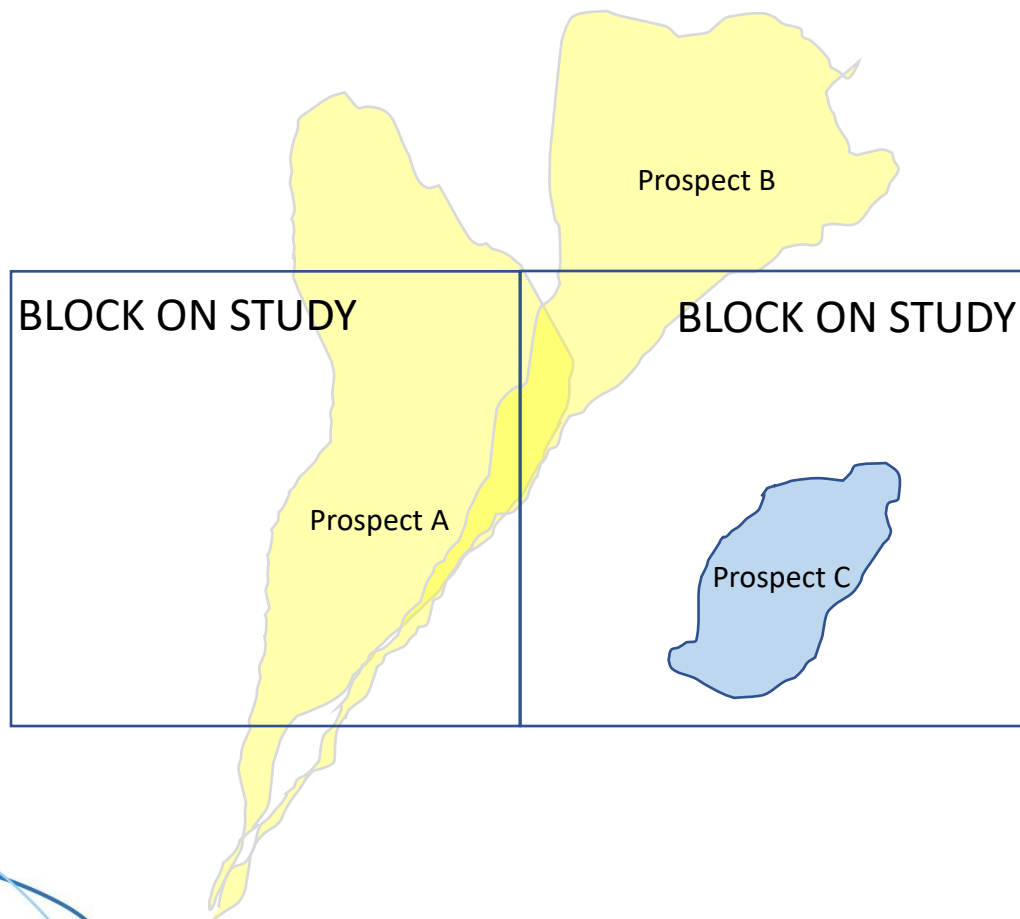
NOMINATION \neq DECLARATION OF INTEREST

- Ex. 1 ACTUAL (hypothetic)



NOMINATION \neq DECLARATION OF INTEREST

- Ex. 1 ACTUAL (hypothetic)

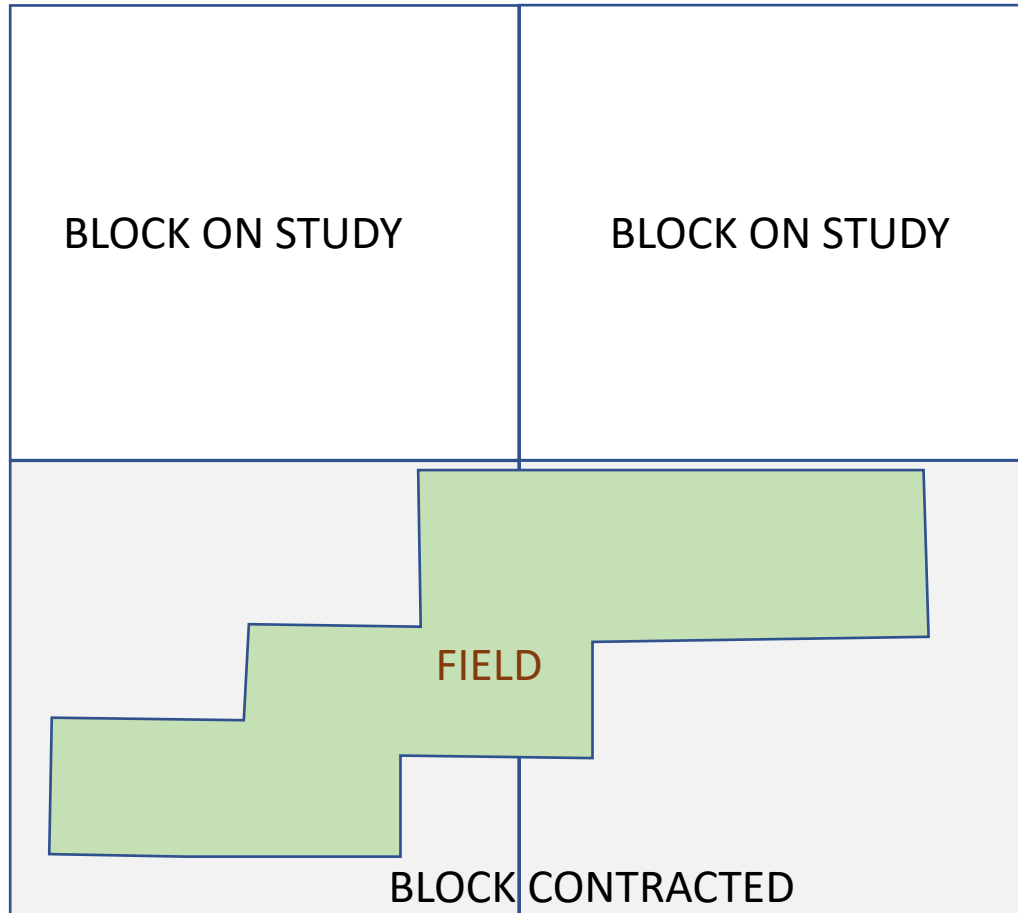


- NOMINATION PROPOSAL (geoeconomics)



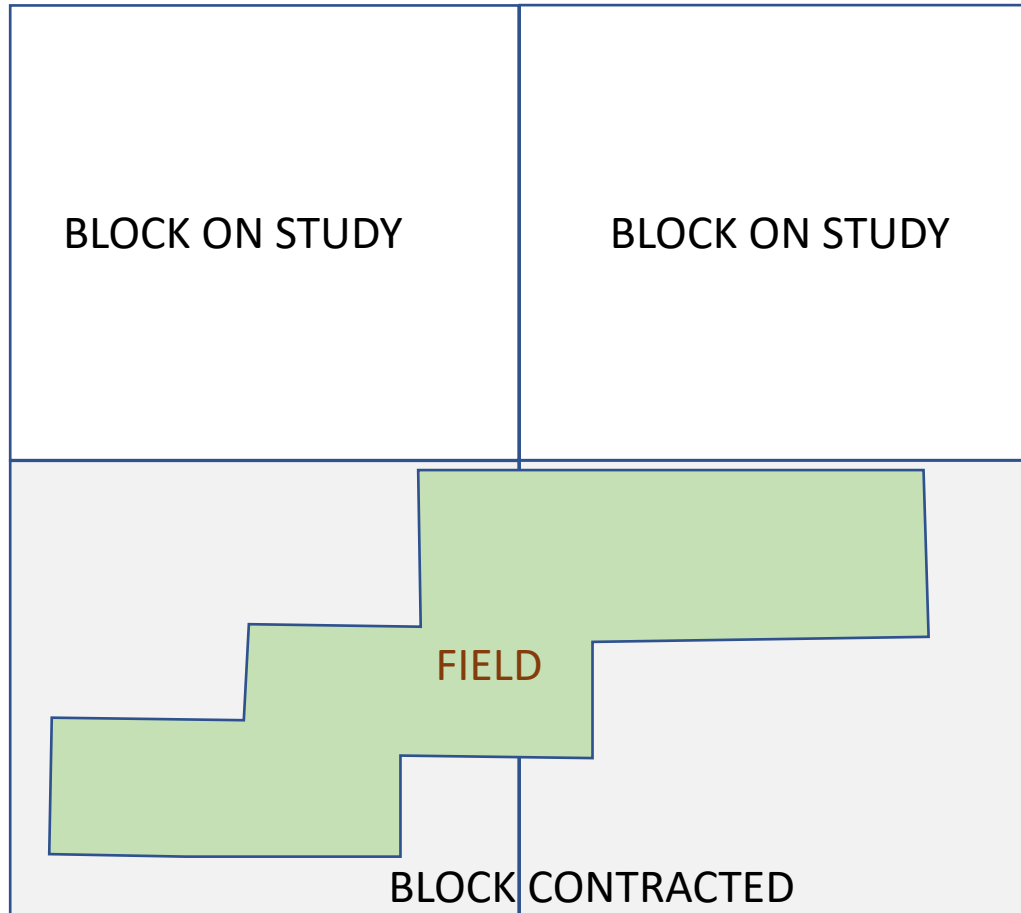
NOMINATION \neq DECLARATION OF INTEREST

- Ex. 2 – ACTUAL (hypothetic)

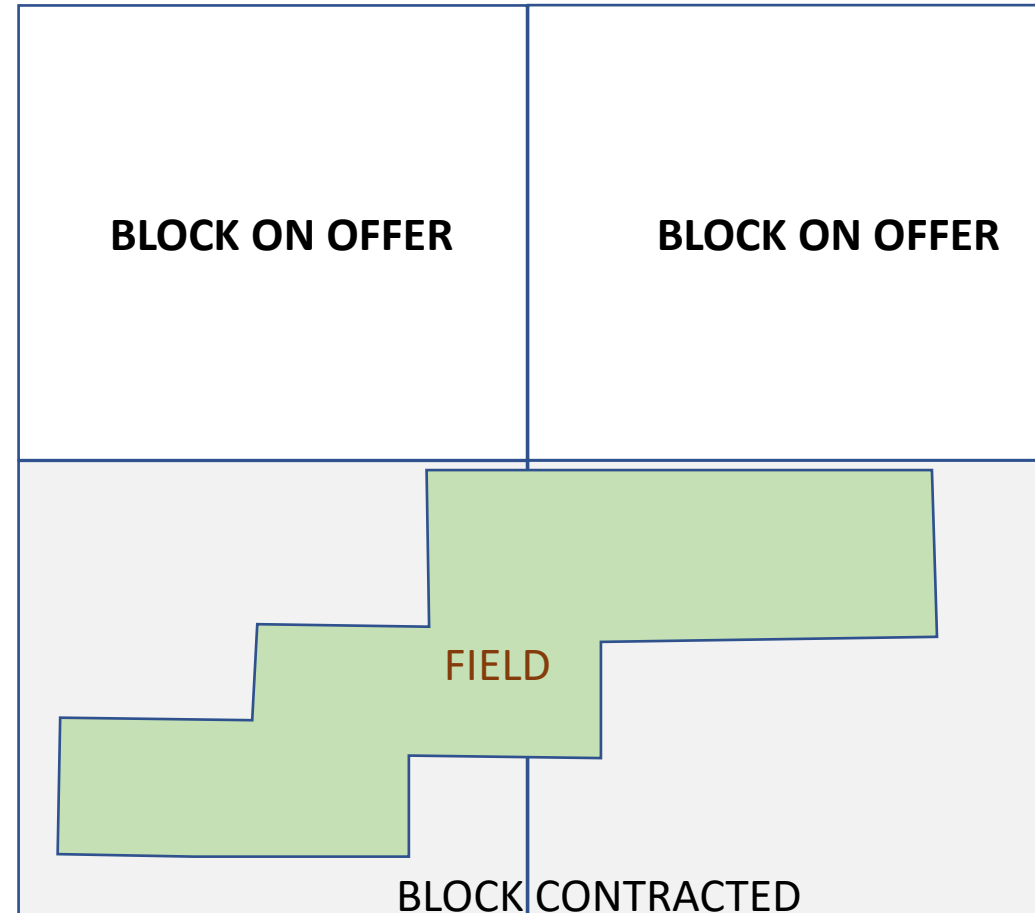


NOMINATION \neq DECLARATION OF INTEREST

- Ex. 2 – ACTUAL (hypothetic)



- NOMINATION PROPOSAL (priority)



OPEN ACREAGE

CNPE Resolution n° 17, 2017 / n° 03, 2020



PERMANENT OFFER OF BLOCKS



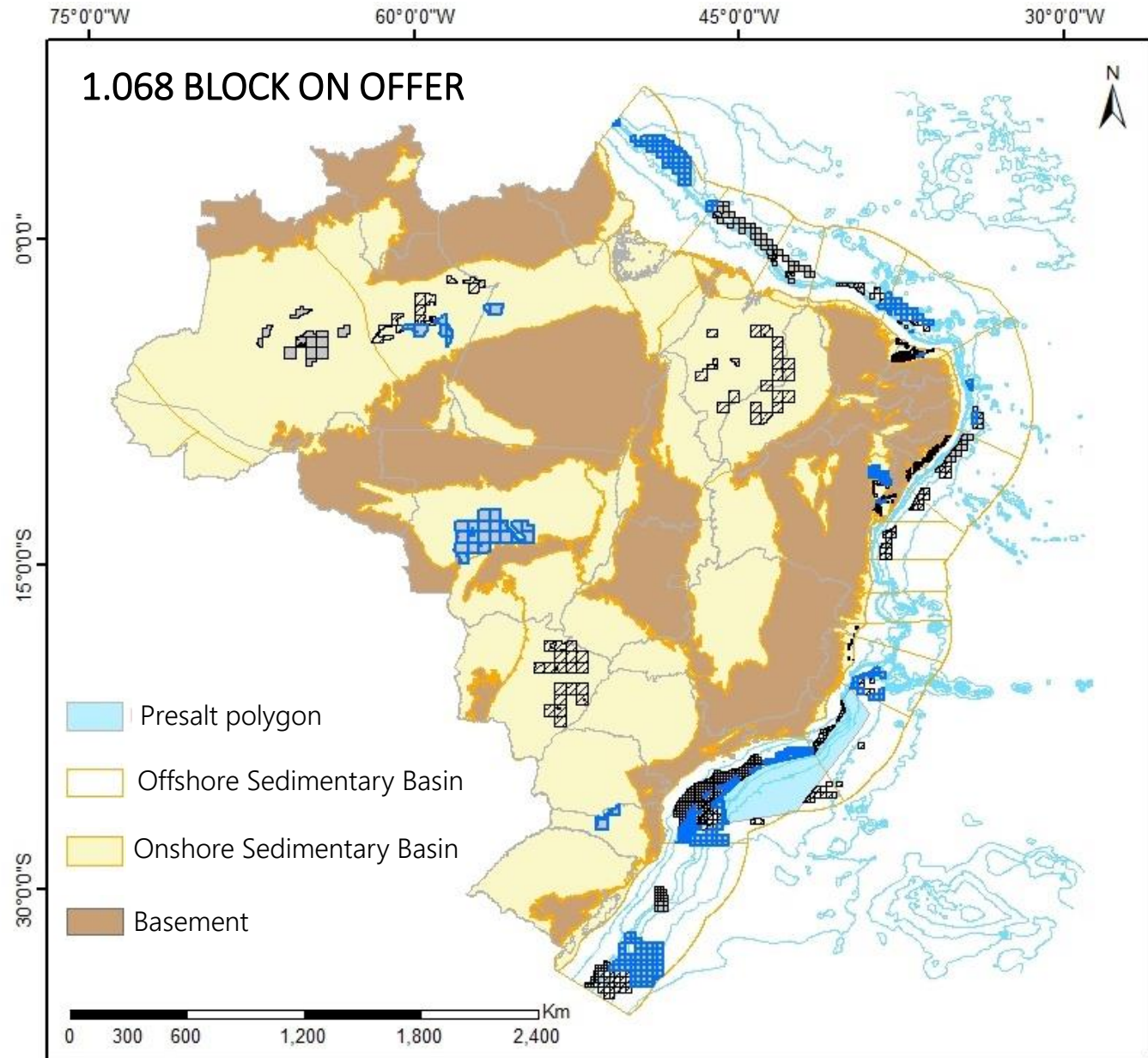
On offer
(recently approved 377 blocks)



On offer (691 blocks)

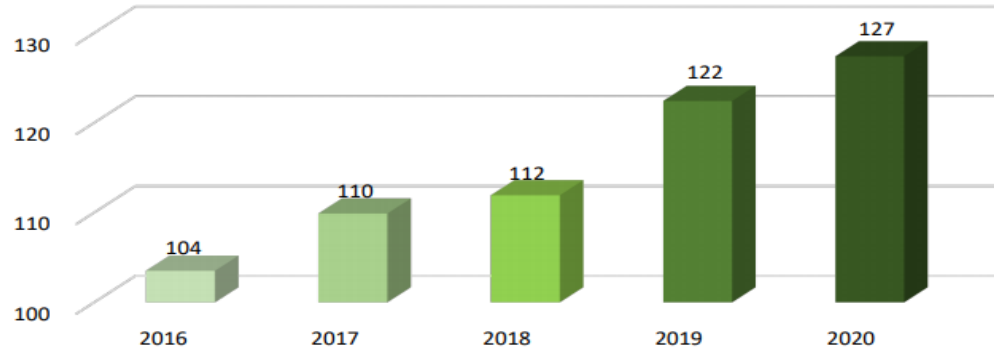


On Study (727 blocks)

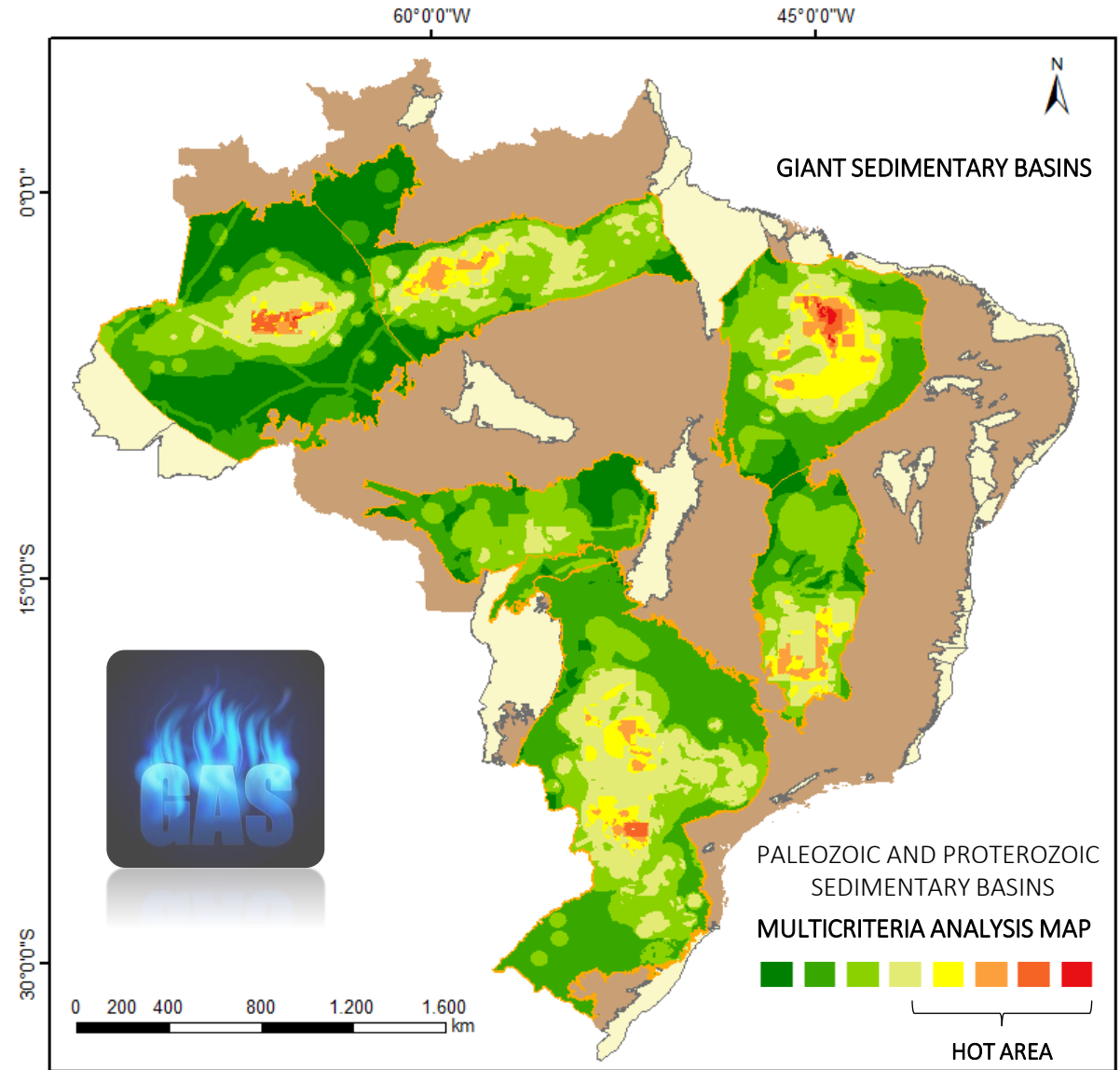
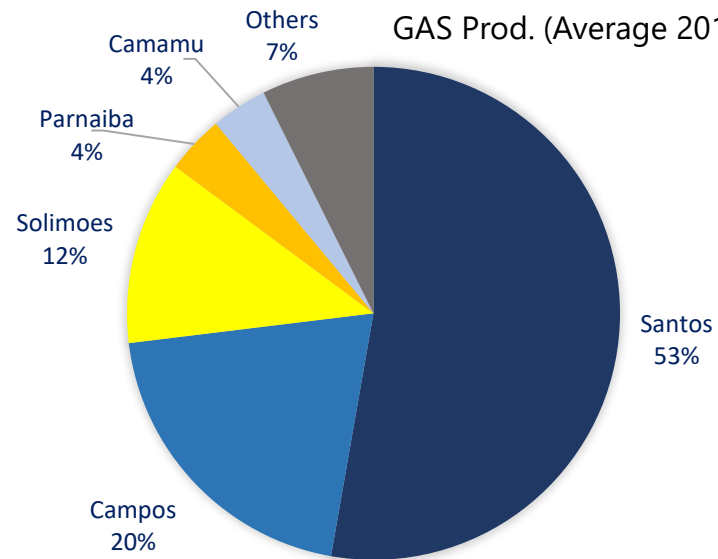


<http://rodadas.anp.gov.br/en/open-acreage>

GAS Prod. (MM³/d)



GAS Prod. (Average 2016-2020)





Well-known geology

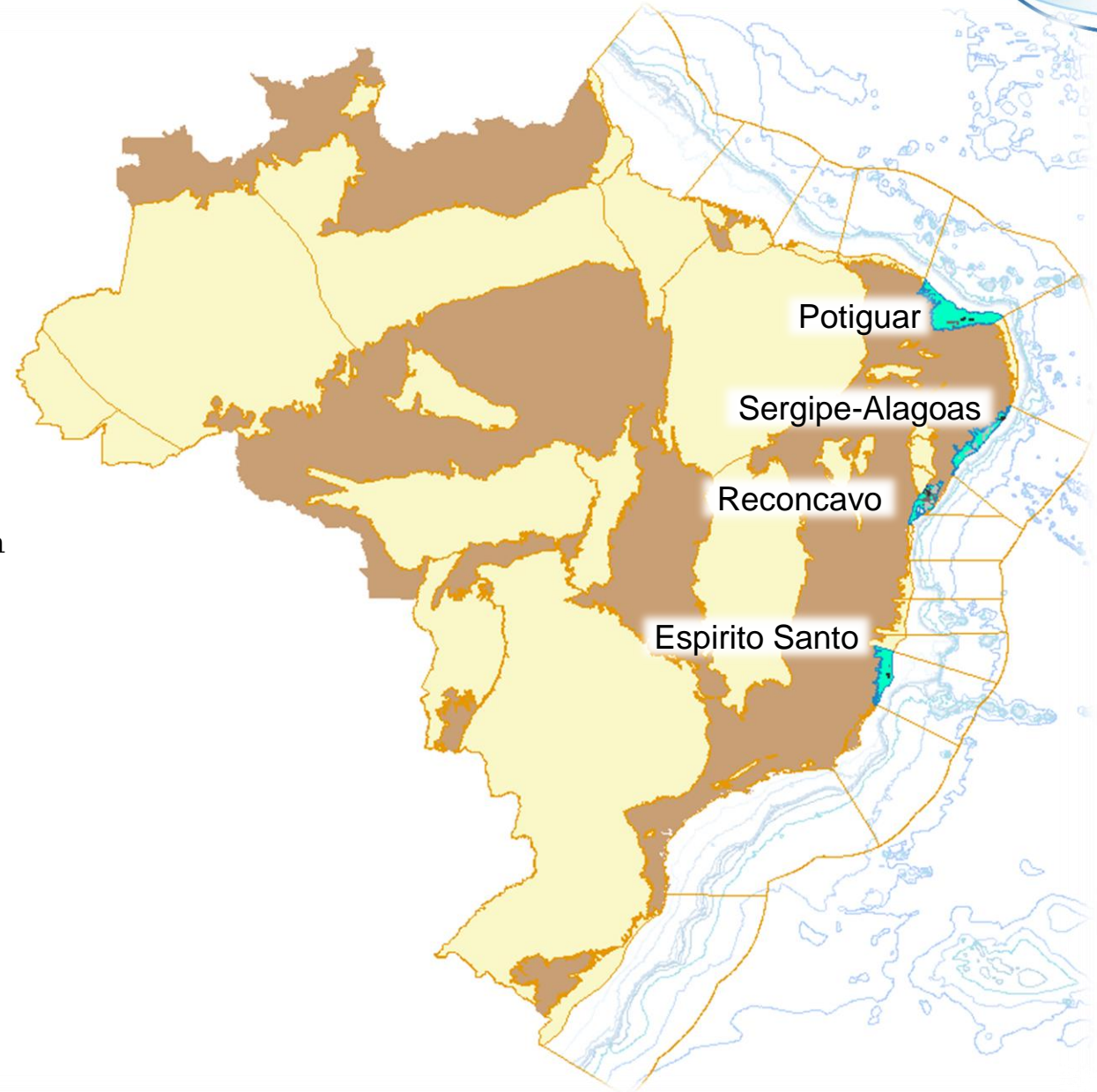
Available infrastructure and exploratory information

Positive impact on local content

Recent discoveries reported

Well succeed 1st and 2nd Cycle of Permanent offer

Divestment BR Plan



SCHEDULE (The companies start the cycles)

December/20

2nd Cycle (Done)

<http://rodadas.anp.gov.br/en/open-acreage/second-cycle-open-acreage/results-second-cycle-of-open-acreage>



September/19

1st Cycle (Done)

<https://relatoriosbid.anp.gov.br/ResumoGeral/ResumoGeralDesktop/43>

DECLARATION OF INTEREST



**Market Driven Choice
3rd Cycle**



**Market Driven Choice
4th Cycle**

Final Remarks



**Public session
scheduled to dec. 2021**



**Compensation to
Petrobras**

US\$ 3.25 billion for Atapu
US\$ 3.2 billion for Sépia



Bidding Cost reduction

Sepia - SB 68 % | PS rate 77%
Atapu - SB 70 % | PS rate 46%



PRE-SALT

OFFSHORE – PRODUCTION SHARE

Attract Right Players to Each E&P Environment

Final Remarks

- ✓ Technical seminar scheduled to 15th June 2021
 - ✓ Public session scheduled to nov. 2021
 - ✓ Four sedimentary basins (92 Blocks)
 - POTIGUAR (14)
 - CAMPOS (15)
 - SANTOS (13)
 - PELOTAS (50)
- } Nearby blocks recently acquired
- } In front of the market



POS-SALT / PRE-SALT

OFFSHORE - CONCESSION

Attract Right Players to Each E&P Environment

Final Remarks

- ✓ The entire cycle does not exceed 90 days (about 3 months)
- ✓ The companies start the cycles (3rd, 4th, ..., nth)
- ✓ All sedimentary basins with Hydrocarbon potential
 - 691 + 377 => 1.068 BLOCKS ON OFFER
 - 727 BLOCKS ON STUDY
 - HUNDREDS OF BLOCK CAN BE **NOMINATED [ANP-SAG]**
 - DOZENS OF FIELDS CAN BE **NOMINATED [ANP-SDP]**



POS-SALT / PRE-SALT

ONSHORE AND OFFSHORE

Attract Right Players to Each E&P Environment

ONLINE TECHNICAL SEMINAR

<http://rodadas.anp.gov.br/en/17th-bidding-round>

Contact: 0800 970 0267

<https://www.gov.br/anp/pt-br>

<http://rodadas.anp.gov.br/en/>

<https://www.gov.br/anp/pt-br/assuntos/exploracao-e-producao-de-oleo-e-gas/estudos-geologicos-e-geofisicos/nominacao>

NOMINATION