



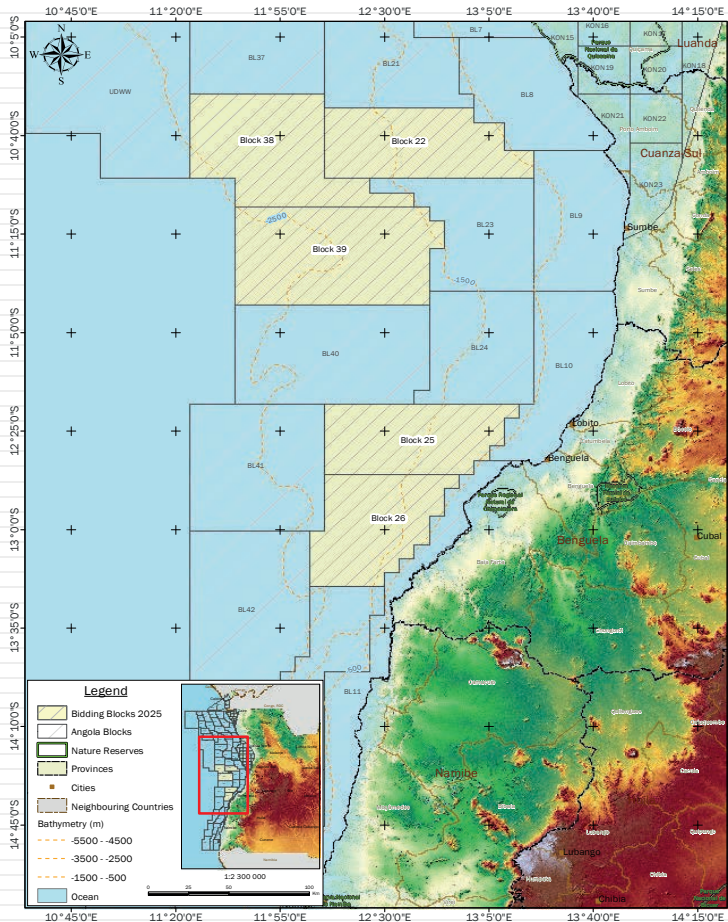
BACIAS MARÍTIMAS
DO KWANZA E DE
BENGUELA • 2025

LICITAÇÃO DAS
CONCESSÕES PETROLÍFERAS
BIDDING OF OIL CONCESSIONS
REPÚBLICA DE ANGOLA

OFFSHORE KWANZA AND BENGUELA BASINS

B R O C H U R E

INTRODUCTION



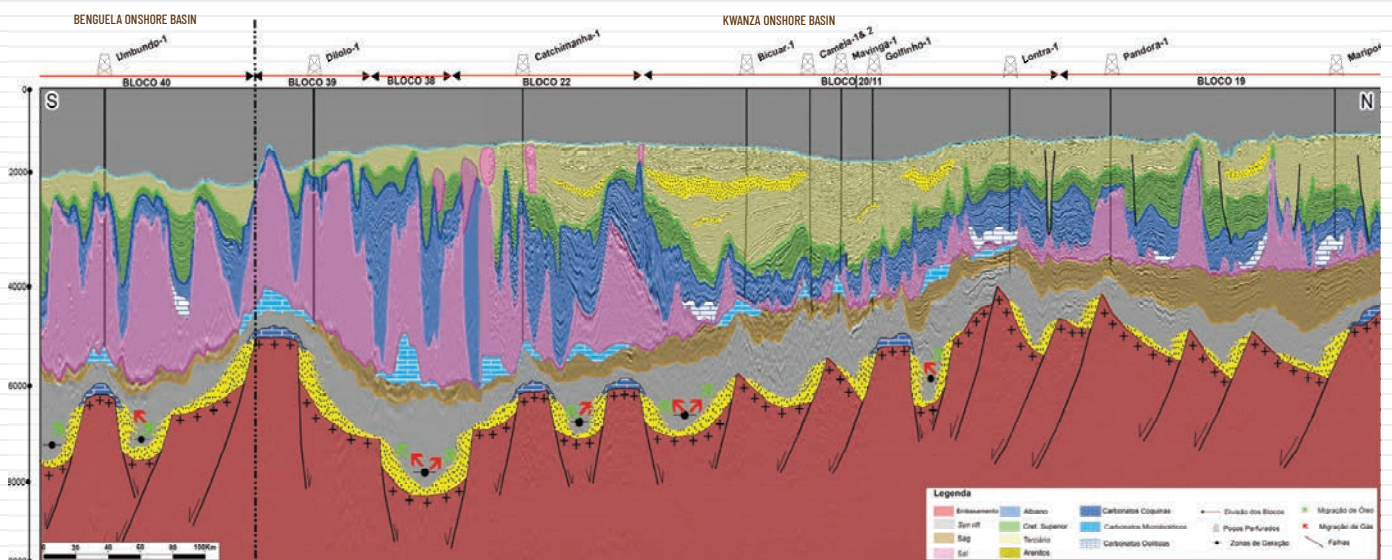
Geographical Location of the Kwanza and Benguela Maritime Basins

Dominated In compliance with Presidential Decree No. 52/19 of February 18, which approves the award of oil concessions for the 2019-2025 period, the National Oil, Gas and Biofuels Agency (ANPG) played a pivotal role. The ANPG carried out a series of activities to reassess the oil potential of Blocks 22, 38 and 39 of the Offshore Kwanza Basin and Blocks 25 and 26 of the Offshore Benguela Basin, demonstrating its commitment to the industry and its stakeholders.

The Offshore Kwanza and Benguela Basins are interconnected entities with unique tectono-structural and lithostratigraphic features.

They represent two classic passive margin basins on the West African margin, which evolved due to the Meso-Cenozoic (Neocomian) rifting of Gondwana and the subsequent separation of the South American and African continents. Their sedimentary history is marked by distinct paleoenvironmental variations, transitioning between continental, transitional and marine environments and showcasing the Pre- and Post-salt lithostratigraphic units.

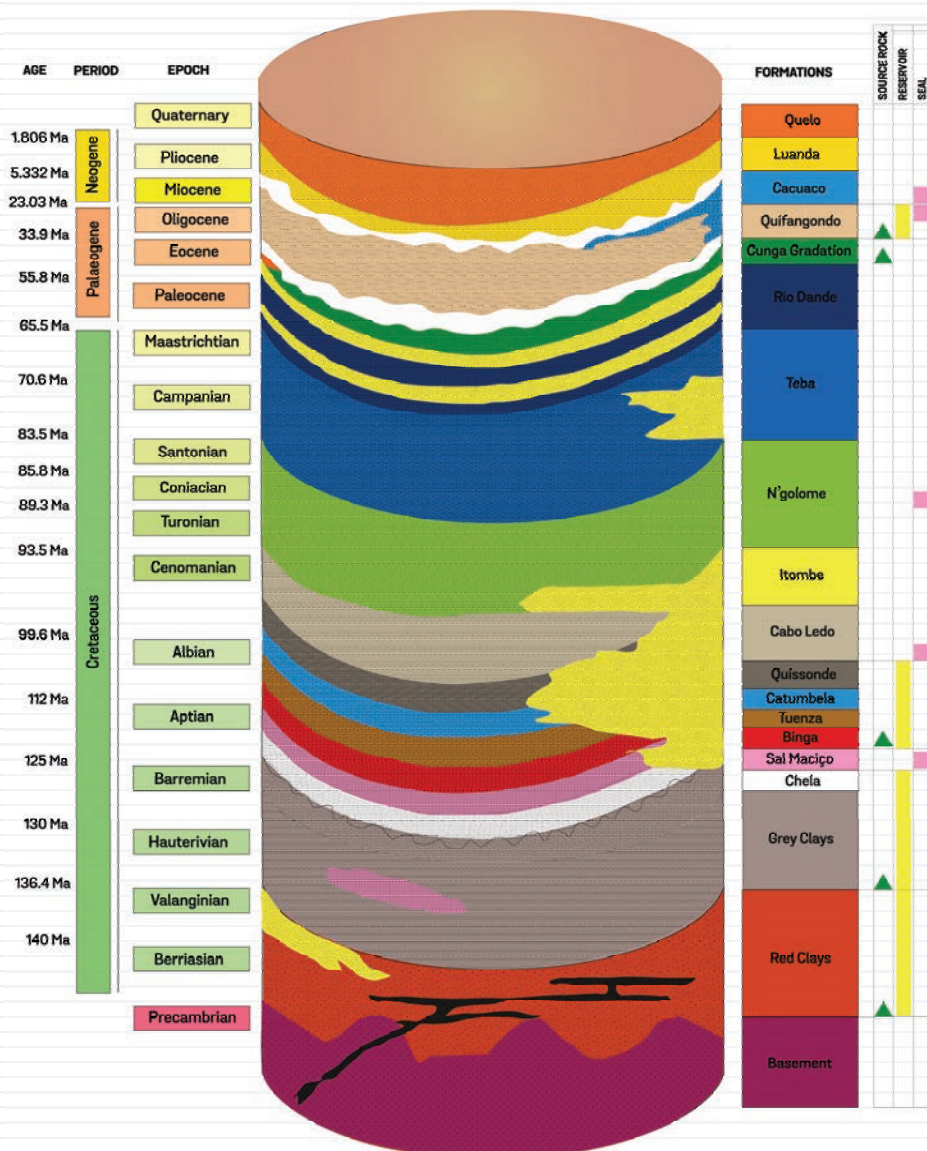
GEOLOGICAL AND STRUCTURAL MODEL



The Pre-salt unit is structurally characterized by faults eradicated in the basement, giving rise to horsts and grabens, i.e. structural highs and lows that constitute the primary hydrocarbon generation and accumulation zones. At the bottom of the grabens, fine materials rich in organic matter were deposited. This organic-rich material, which constitutes the source rock of the Cuvo Formation, is crucial for understanding the hydrocarbon generation process. It feeds the sandstone reservoirs deposited on the flank of the Horsts, equivalent to the Lucula Formation, and the carbonates at the top of the Horsts, equivalent to the Toca Formation, both in the Lower Congo. At the top of this sequence, a sag-type basin has formed where we find sandstones and microbiolites carbonates from the Cuvo Cinzento Formation. This sequence culminates in the deposition of the Sal Maciço Formation, which acts as a regional seal for the Pre-salt unit and structures the post-salt.

Syn-depositional normal faults with listric tailings structurally characterize the post-Salt. As a result of salt tectonics, salt diapirs and raft and anticlinal structures were formed, the latter being the main hydrocarbon traps in the Albian. The Binga Formation is the main generator, feeding the oolitic limestone reservoirs of the same Formation and, as cover rock, the intraformational clays of the same Formation. In the Upper Cretaceous, we have the clays of the Cabo Ledo Formation as the source rock, the sands of the Itombe and Teba Formations as reservoirs, the clays of the upper Itombe Formation and the clays of the upper Teba Formation as the seal. In the Tertiary, the clays and marls of the Cunga-gratitude Formation and the Quifangondo Formation, with their crucial role, act as the source rock, the sandstone channels of the Quifangondo Formation as the reservoir and the clays of the same formation as the seal.

PETROLEUM SYSTEM



BLOCK 22

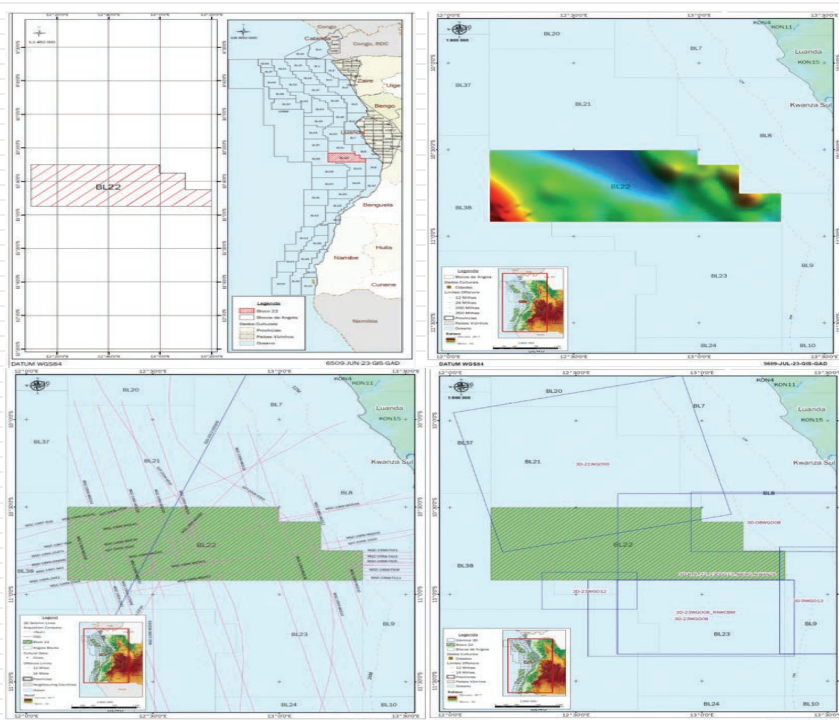
LOCATION

Located in the Offshore portion of the Kwanza Basin, it is bordered to the north by Block 21, to the south by Blocks 23 and 38, to the east by Blocks 8 and 9, and to the west by Block 38.

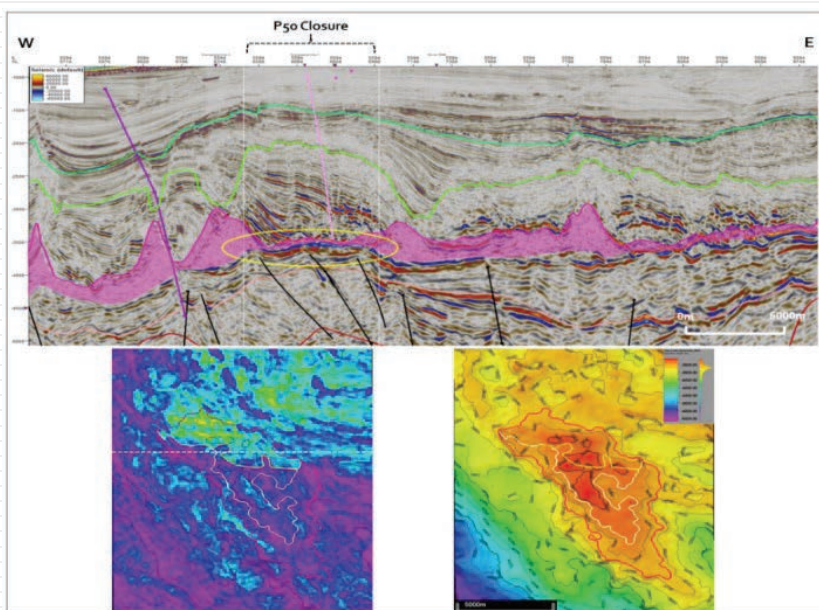
Area: 5 843 Km²

AVAILABLE DATA

1. 2012: Magnetometric and gravimetric survey by the company Fugro;
2. 1998 - 2015: Acquisition of 1,500 km of 2D seismic and 5,630 km² of multi-client 3D seismic by PGS;
3. 2002 - 2014: Drilling of the Serra do Moco-1, Locoso-ST1 and Catchimanha-1 exploration wells.



OPPORTUNITIES

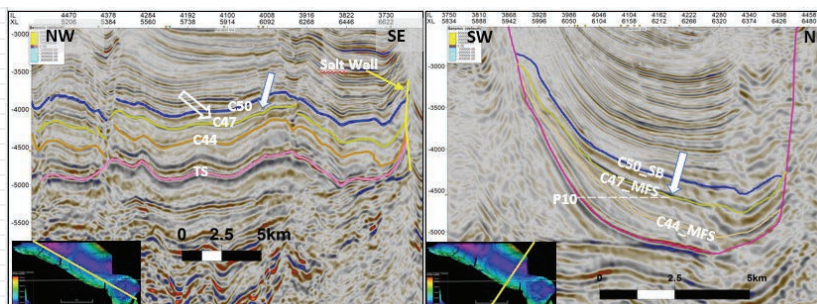


LEAD BLA (WS3_L1)

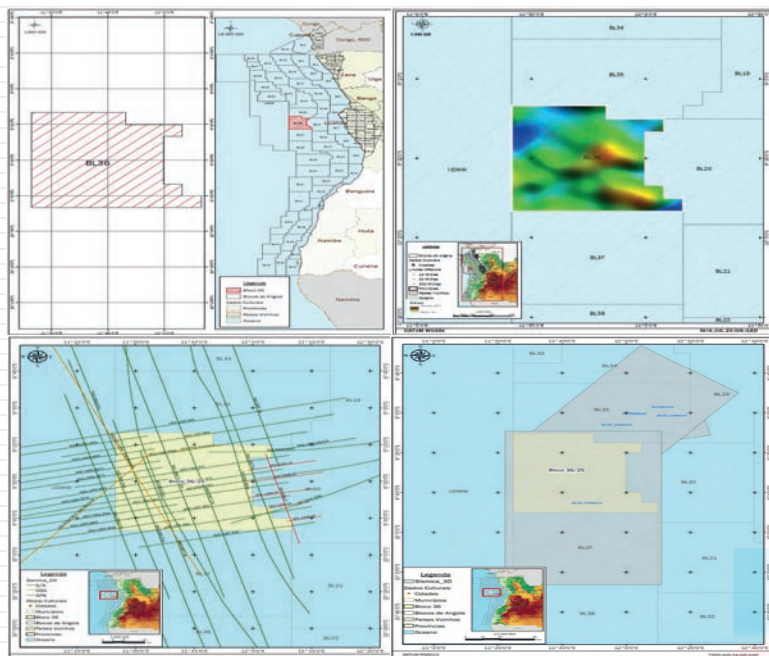
The structure identified at the Sag level, in the Pre-salt, located in the western part of the Block, is of paramount importance as a dominant structural closure due to the influence of the horst. It features microlites and sandstones of the Sag as reservoirs, the clays of the Cuvo Formation as the source rock, and the evaporite layer of the Sal maciço as a seal.

LEAD ALBIAN_STRAT_JG (WS1, L1)

This comprehensive report on the anticlinal structure at the Albian level provides a complete picture: the source rock consists of the clays from the Binga Formation, while the potential reservoirs include the oolitic limestones and sandstones of the same formation. The cover rock comprises the intraformational clays of the Binga Formation.



BLOCK 36



LOCATION

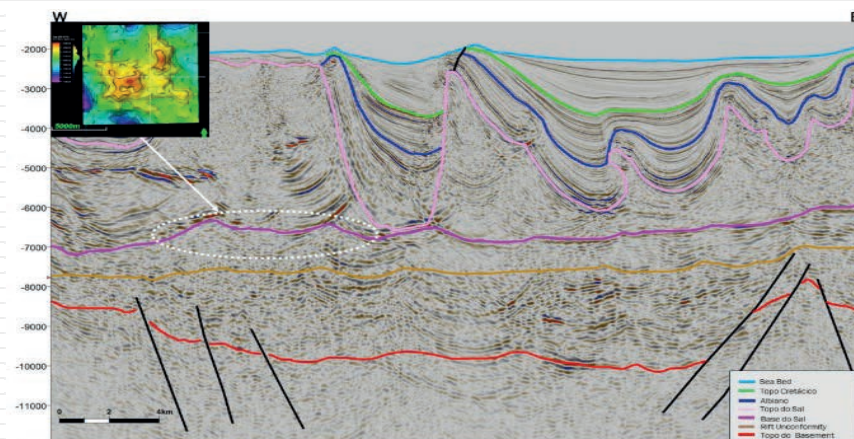
Located in the Offshore portion of the Kwanza Basin, on a sheet of water between 1200 and 2700 m deep, bordered to the north by Block 37, to the south by Block 39, to the east by Block 22 and to the west by the Atlantic Ocean.

Area: 4.876 Km²

AVAILABLE DATA

1. 1992: Acquisition of 1.226 km of vintage 2D seismic by GECO;
2. 2012: Magnetometric and gravimetric survey by the company Fugro; acquisition of 14.588 km² of multi-client 3D seismic by PGS;
3. 2014: Drilling of the Kamoxi-1 exploration well.

OPPORTUNITIES

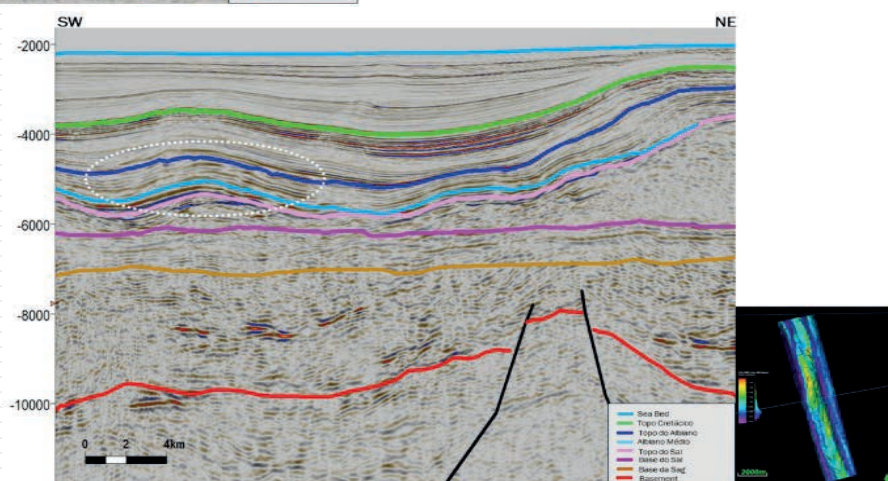


LEAD UPPER SAG_EL (WS1, L3)

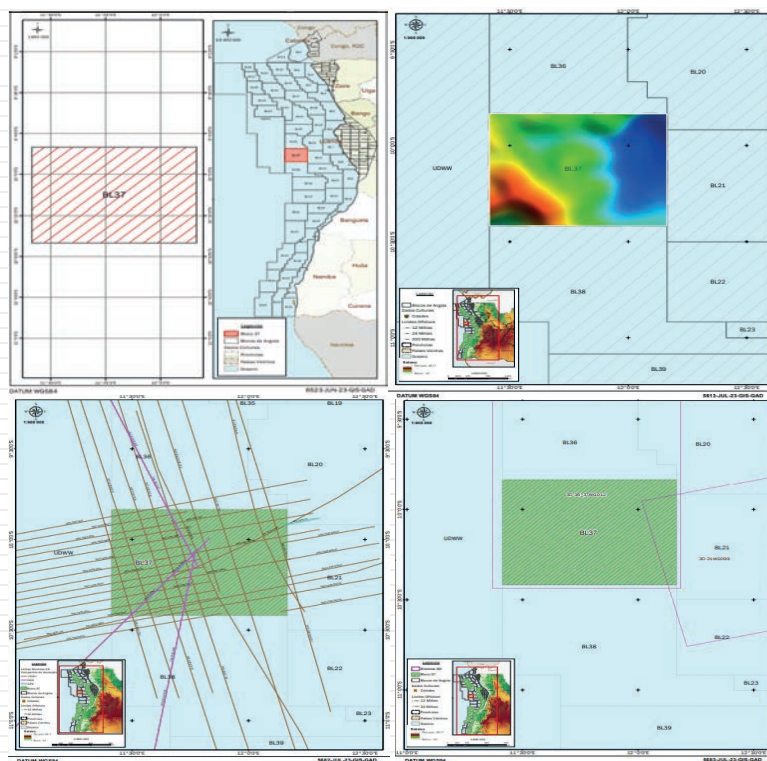
The structure features closure in all four directions at the Sag level in the Pre-salt. The clays of the Cuvo Formation serve as the generators, while the reservoirs comprise microbiolites, carbonates, buildups, and sandstones. As cover rock, the Evaporites of the Sal Maciço Formation act as an effective seal.

LEAD ALBIAN_STRAT_EL (WS1, L1)

The structure features closure in all four directions at the Sag level in the Pre-salt. The clays of the Cuvo Formation serve as the generators, while the reservoirs comprise microbiolites, carbonates, buildups, and sandstones. As cover rock, the Evaporites of the Sal Maciço Formation act as an effective seal.



BLOCK 37



LOCATION

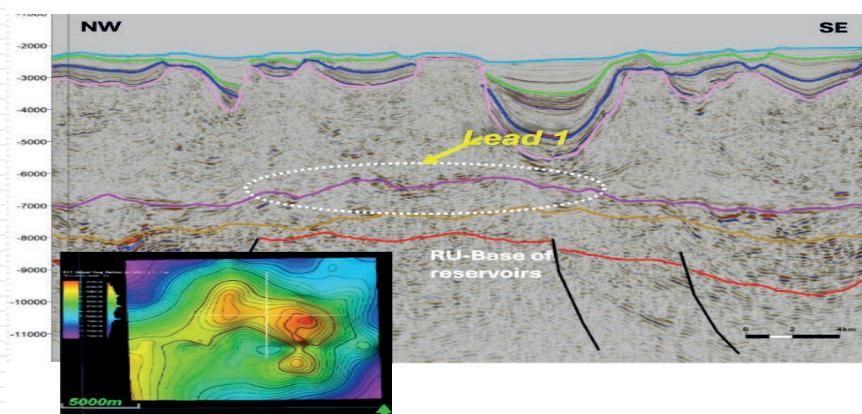
Located in the Offshore portion of the Kwanza Basin, it is bordered to the north by Block 36, to the south by Block 38, to the east by Blocks 20 and 21, and to the west by the Atlantic Ocean.

Area: 5.315,5 Km²

AVAILABLE DATA

1. 1993: Acquisition of 1,226 Km of 2D seismic by WesternGeco;
2. 1999: Acquisition of 10,500 Km² of 3D seismic by WesternGeco;
3. 2012: Magnetometric and gravimetric survey by Fugro;
4. 2014 - 2015: Drilling of the Omosi-1 and Vali-1 exploration wells.

OPPORTUNITIES

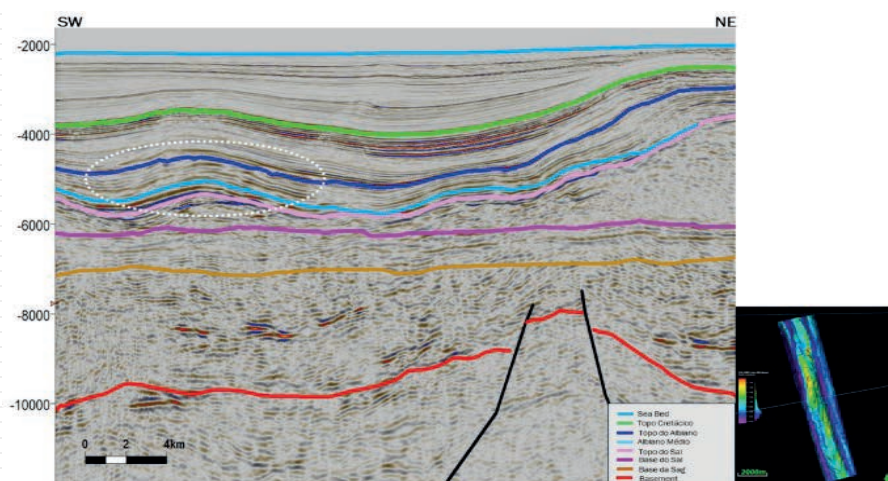


LEAD UPPER SAG_AC (WS3, L2)

An anticlinal structure with closure in all four directions, at the Sag level in the Pre-salt, clays from the Cuvo Formation serve as the generators. The reservoirs are microbial carbonates, buildups, and sandstones, and the cover rock is Evaporites from the Sal Maciço Formation.

LEAD MIOCENE COMBO GB (WS3, L1)

Structure at the Miocene level with closure in all four directions, the source rocks are the clays of the Binga and Cunga Gratidão Formations, the turbiditic channels as reservoirs, and the cover rock is the intraformational clays of the Quifangondo Formation.



BLOCK 38

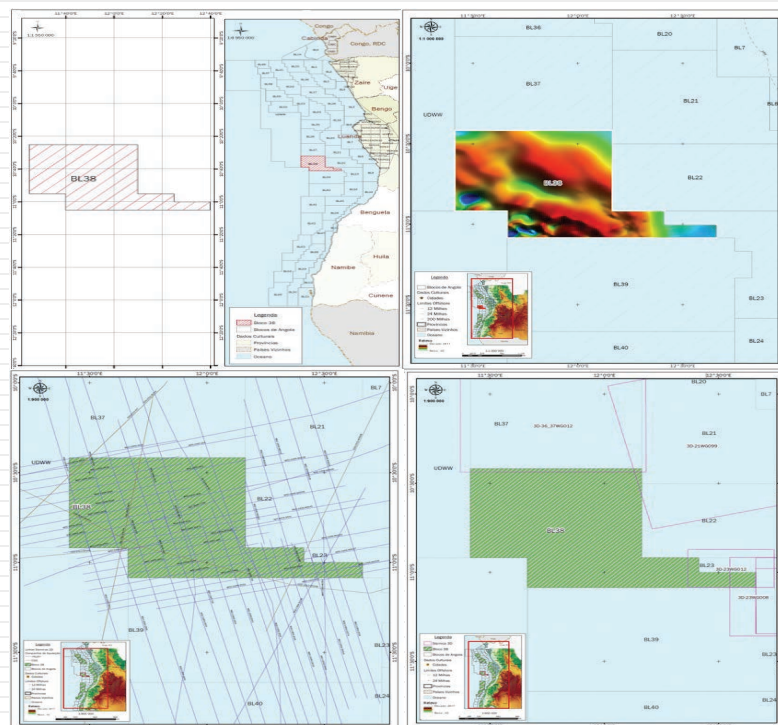
LOCATION

Located in the Offshore portion of the Kwanza Basin in a water depth of between 1,200 and 2,700 m, it is bordered to the north by Block 37, to the south by Block 39, to the east by Block 22 and to the west by the Atlantic Ocean.

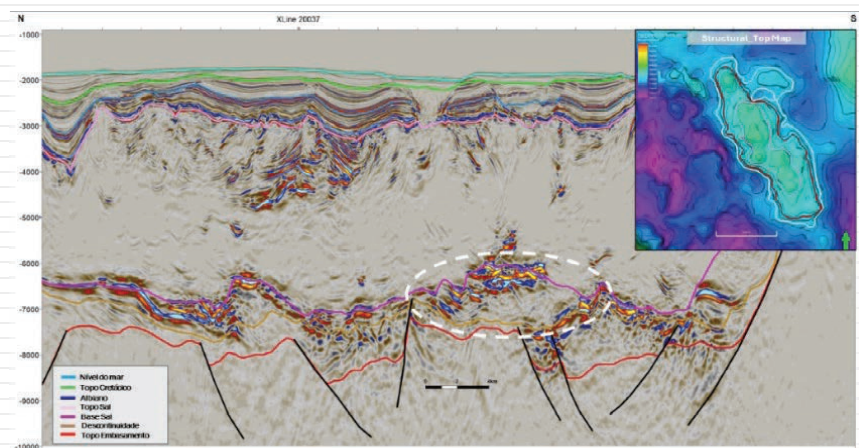
Area: 4.900 Km²

AVAILABLE DATA

1. 1992: Acquisition of 1500 km of vintage 2D seismic by GECO;
2. 2012: Magnetometric and gravimetric survey by the company Fugro; acquisition of 5,630 km² of multi-client 3D seismic, pela PGS;
3. 2014: Drilling of the Jacaré-1 exploration well.



OPPORTUNITIES

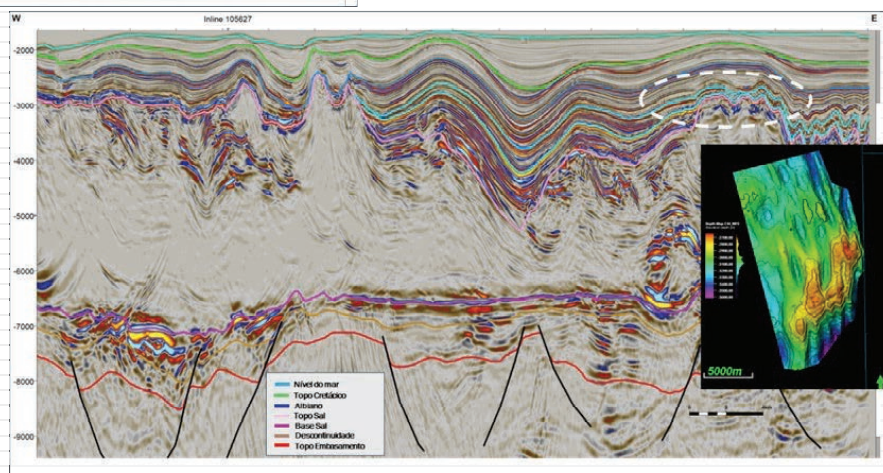


LEAD UPPER SAG_DOMAL_IM (WS3, L1)

Structure at Sag level, in the Pre-salt, with closure in all four directions, the clays of the Cuvo Formation are the generators, the reservoirs are the Coquinas-type carbonates, and the cover rock is the evaporites of the Sal Maziço Formation.

LEAD ALBIAN_STRUC_GB (WS2, L1)

Structure at Albian level with closure in all four directions. The source rock is the clays of the Binga Formation, the oolitic limestones and sandstones of the same Formation are the potential reservoirs, and the cover rock is the intraformational clays of the Binga Formation.



BLOCK 39

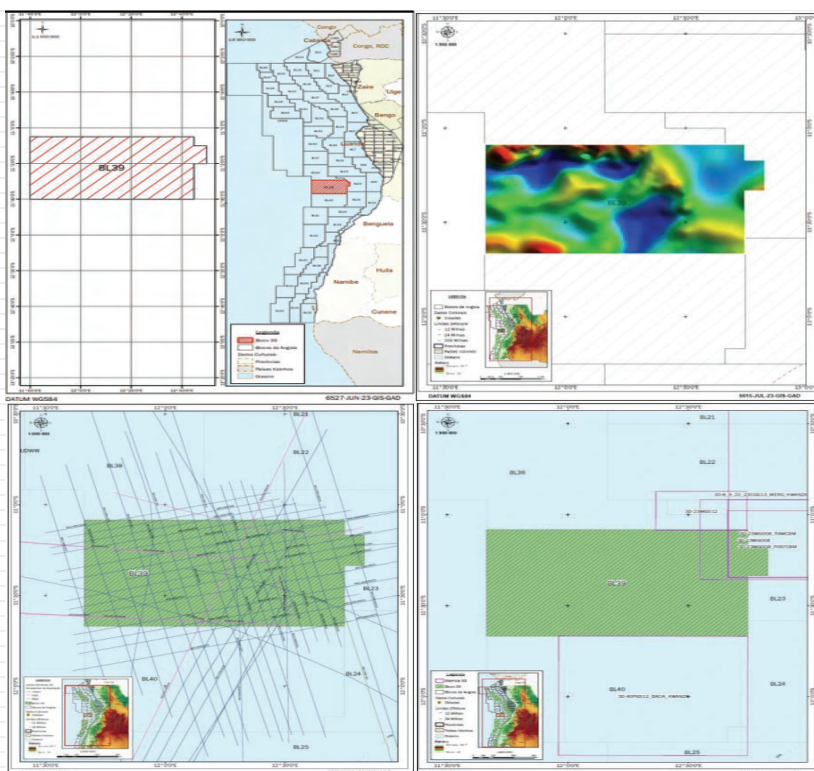
LOCATION

Located in the Offshore portion of the Kwanza Basin, it is bordered to the north by Block 38, to the south by Block 40, to the east by Block 23 and to the west by the Atlantic Ocean.

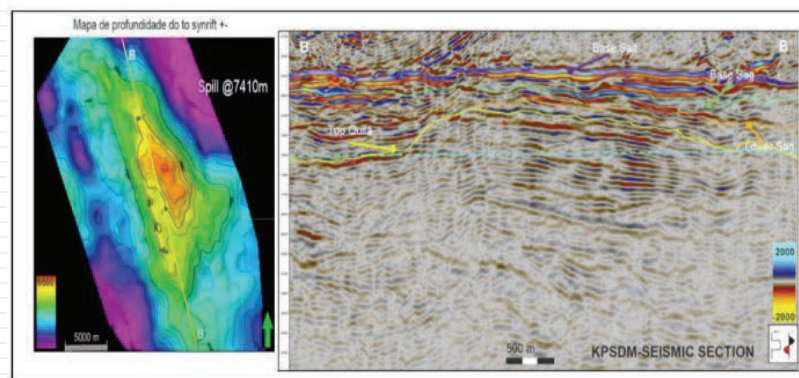
Area: 7 809 Km²

AVAILABLE DATA

1. 1989 - 2006: Acquisition of 2,710 km of 2D seismic by Halliburton, GX Technology and WesternGeco;
2. 2012: Magnetometric and gravimetric survey by Fugro;
3. 2013: acquisition of 5,206 km² of multi-client 3D seismic by PGS;
4. 2014: drilling of the Dilolo-1 exploration well.



OPPORTUNITIES

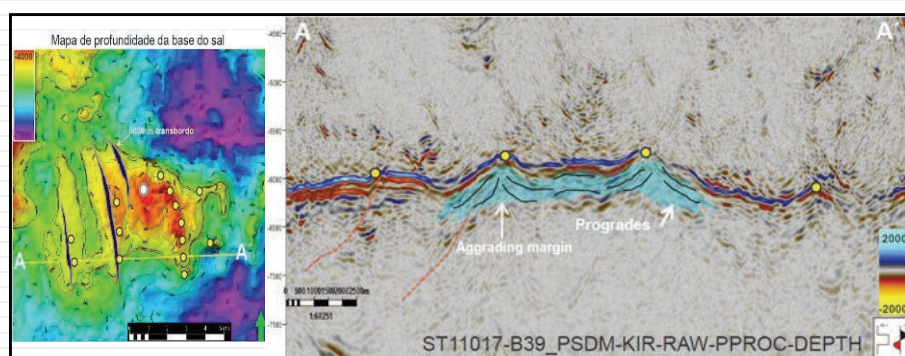


PRE-SALT LEAD QUILA

Structure at the level of the Sag and Syn-rift of the Pre-salt, with structural closure in all four directions, the clays of the Cuvo Formation are the generators; the reservoirs are the Coquinas-type carbonates and as cover rock, the evaporites of the Sal Maciço Formation.

PRE-SALT LEAD NEGOLOME

Structure at the level of the Sag and Syn-rift of the Pre-salt, with structural closure in all four directions, the clays of the Cuvo Formation are the generators; the reservoirs are the Coquinas-type carbonates and as cover rock, the evaporites of the Sal Maciço Formation.



BLOCK 25

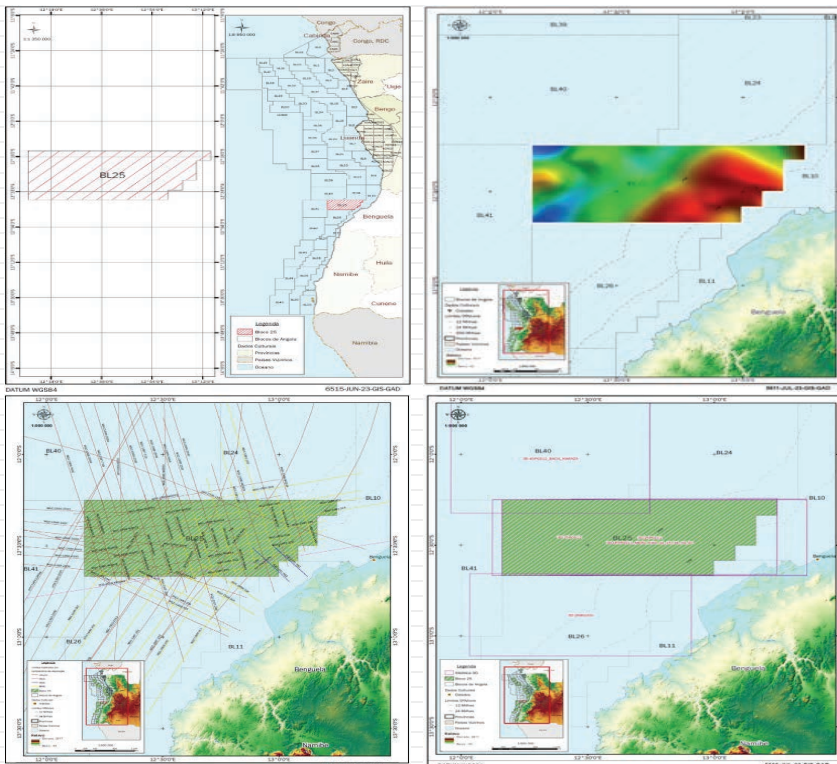
LOCATION

Located in the southeastern part of the Offshore Benguela Basin, it is bordered to the north by Blocks 24 and 40, to the south by Blocks 11 and 26, to the east by Block 10 and to the west by Block 41.

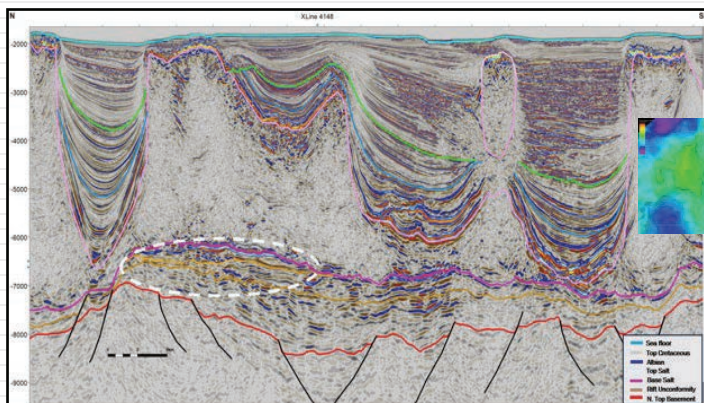
Area: 5 219.6 Km²

AVAILABLE DATA

1. 1990s: Acquisition of 4906 km² of 3D seismic data by the PGS company.
2. 2004-2006: Acquisition of gravimetric, magneto-metric and 2D seismic data in the CongoSPAN1 and CongoSPAN2 projects.
3. 2000-2014: drilling of the Leão-1, Jaguar-1, Pantera-1 and Puma-1 exploration wells.



OPPORTUNITIES

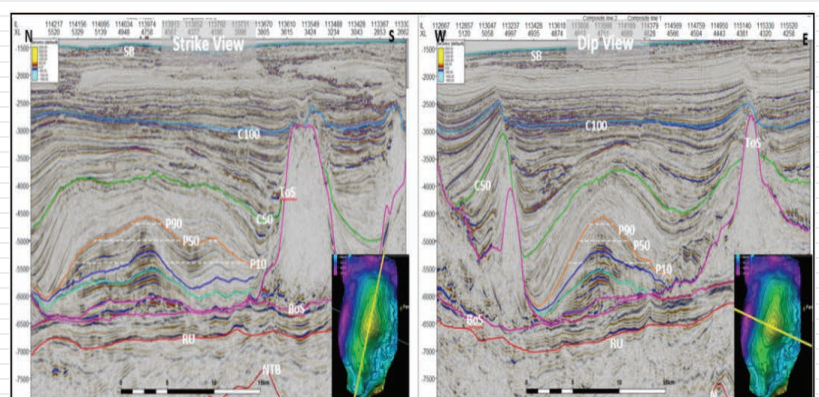


PRE-SALT LEAD UPPER SAG_ EA (WS3, L5)

Structure at Sag level, in the Pre-salt, with closure in all four directions, the clays of the Cuvo Formation are the generators, the reservoirs are the microbitolites and sandstones and as cover rock, the evaporites of the Sal Maciço Formation.

POST-SALT LEAD ALBIAN_MN (WS1, L1)

Structure at Albian level with closure in all four directions. The source rock is clay from the Binga Formation. The oolitic limestones and sandstones from the same Formation are the potential reservoirs. The cover rock is intraformational clay from the Binga and Cabo Ledo Formations.



BLOCK 26

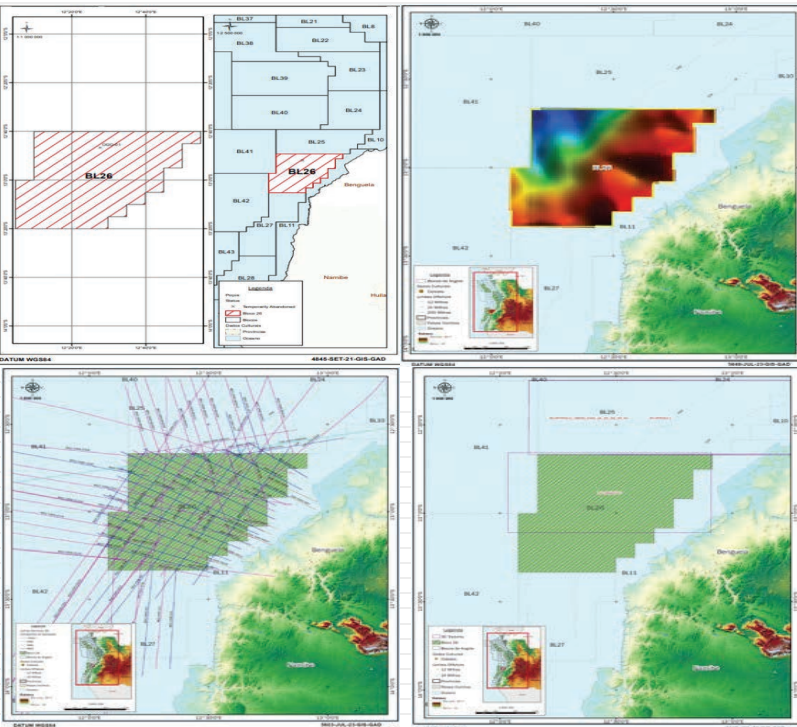
LOCATION

Located in the Offshore Benguela Basin, it is bounded to the north by Block 25, to the south by Block 27, to the east by Block 11 and to the west by Blocks 41 and 42.

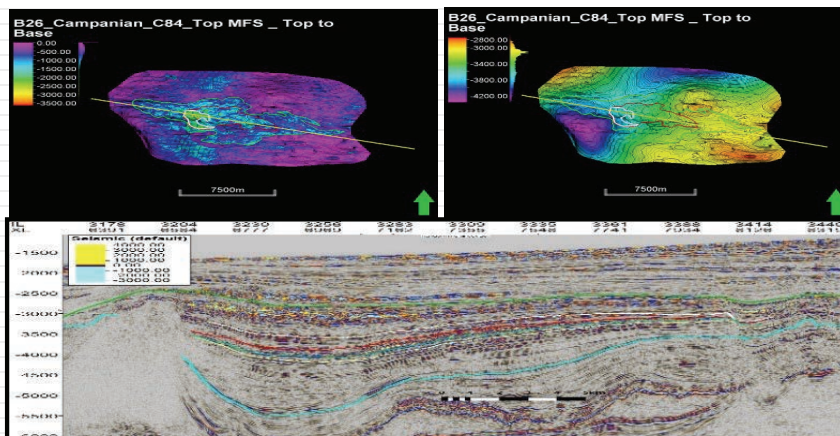
Area: 4 838 km²

AVAILABLE DATA

1. 1997 - 1998: Acquisition of 2,303.41 km of 2D seismic data;
2. 2004-2006: Acquisition of gravimetric, magnetometric and 2D seismic data in the CongoSPAN1 and CongoSPAN2 projects.
3. 2009 - 2010: Acquisition of 3 220 km² of 3D seismic;
4. 2012: Drilling of the Ogongu-1 exploration well.



OPPORTUNITIES

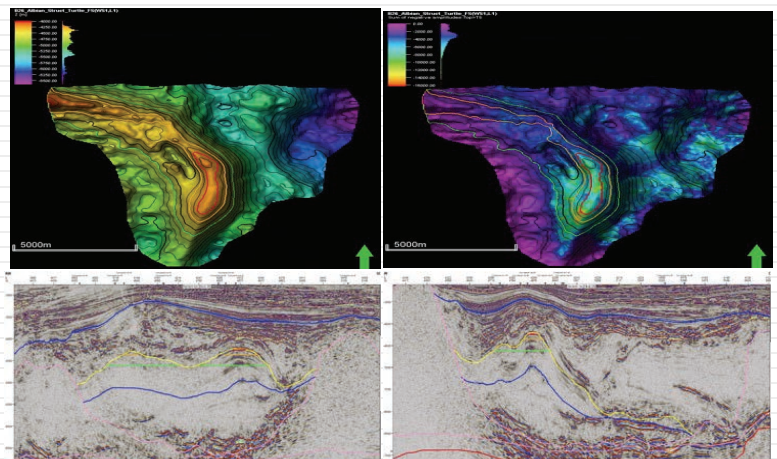


POST-SALT LEAD CAMPAIGN_COMBO_FS (WS3, L1)

Structure at the level of the Sag and Syn-rift of the Pre-salt, with structural closure in all four directions, the clays of the Cuvo Formation are the generators; the reservoirs are the Coquinas-type carbonates and as cover rock, the evaporites of the Sal Maciço Formation.

POST-SALT LEAD B26_ALBIAN_DOMAL_FS (WS1, L1)

Structure at Albian level with structural closure in all four directions. The source rock is the clays of the Binga Formation, the oolitic limestones and sandstones of the Binga Formation are potential reservoirs, and the cover rock is the intraformational clays of the Binga Formation and Cabo Ledo.







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