



ONSHORE CONGO  
AND KWANZA BASINS  
LICENSING  
ROUND . 2020  
**REPUBLIC OF ANGOLA**

## STAKEHOLDERS IN THE SECTOR



**PRESIDENT**



**Petroleum, Gas and Mineral Resources Ministry**



**Finance Ministry**



**IRD**  
INSTITUTO REGULADOR  
DOS DERIVADOS  
DO PETRÓLEO



**ANPG**  
AGÊNCIA NACIONAL DE PETRÓLEO, GÁS  
E BIOCOMBUSTÍVEIS



**Mid/Downstream Operators**



**Sonangol**



**Upstream Operators**

# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



Presidential Decree  
n.º 49/19, of 6th of  
February



## ROLES

- Regulator
- Promotor
- Supervisor

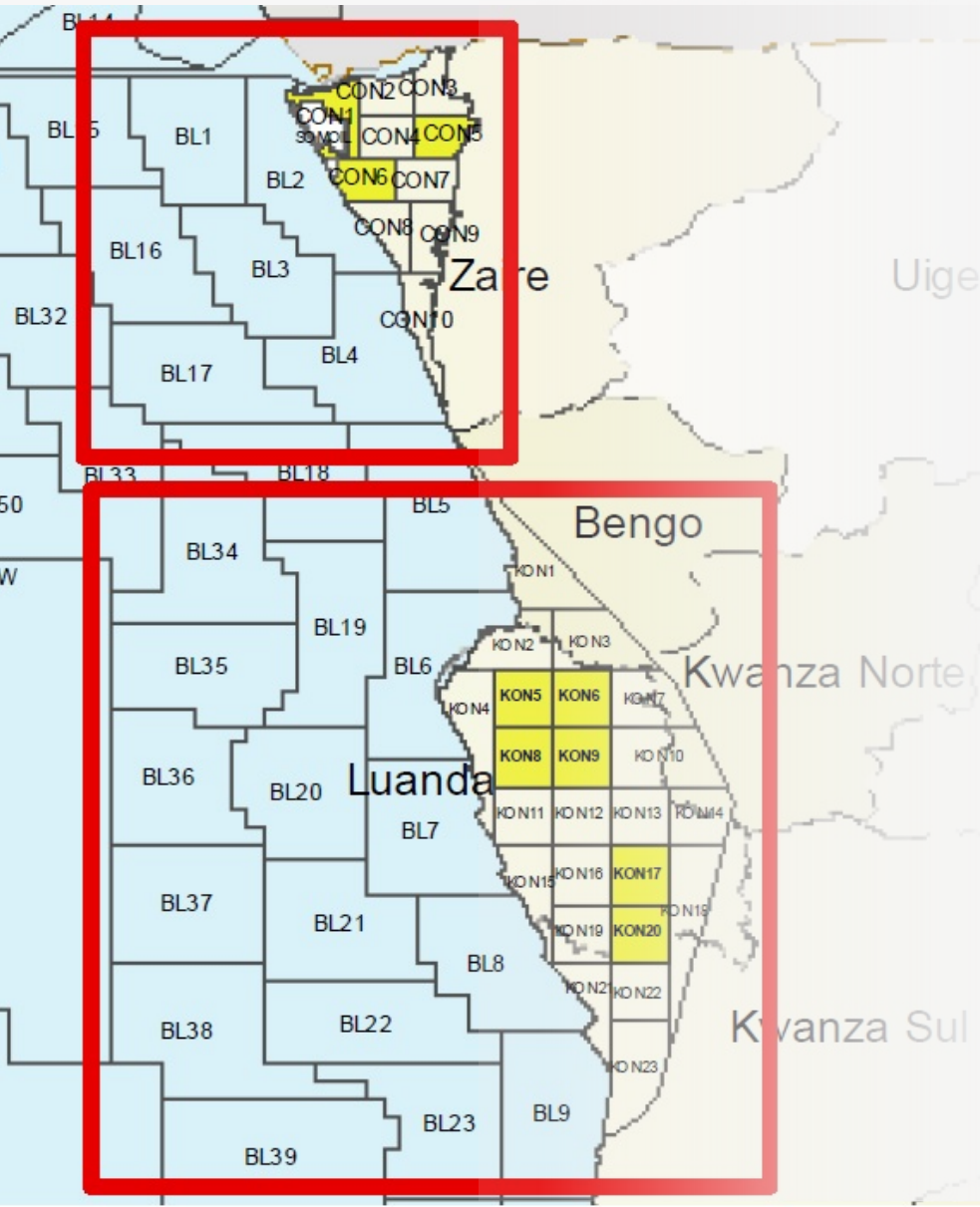
## MISSION

To Maximize value for the State through  
the efficient and responsible management  
of Oil and Gas

## VISION

To become an international entity by  
promoting a business environment of  
excellence and a place of choice for  
investors

# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020

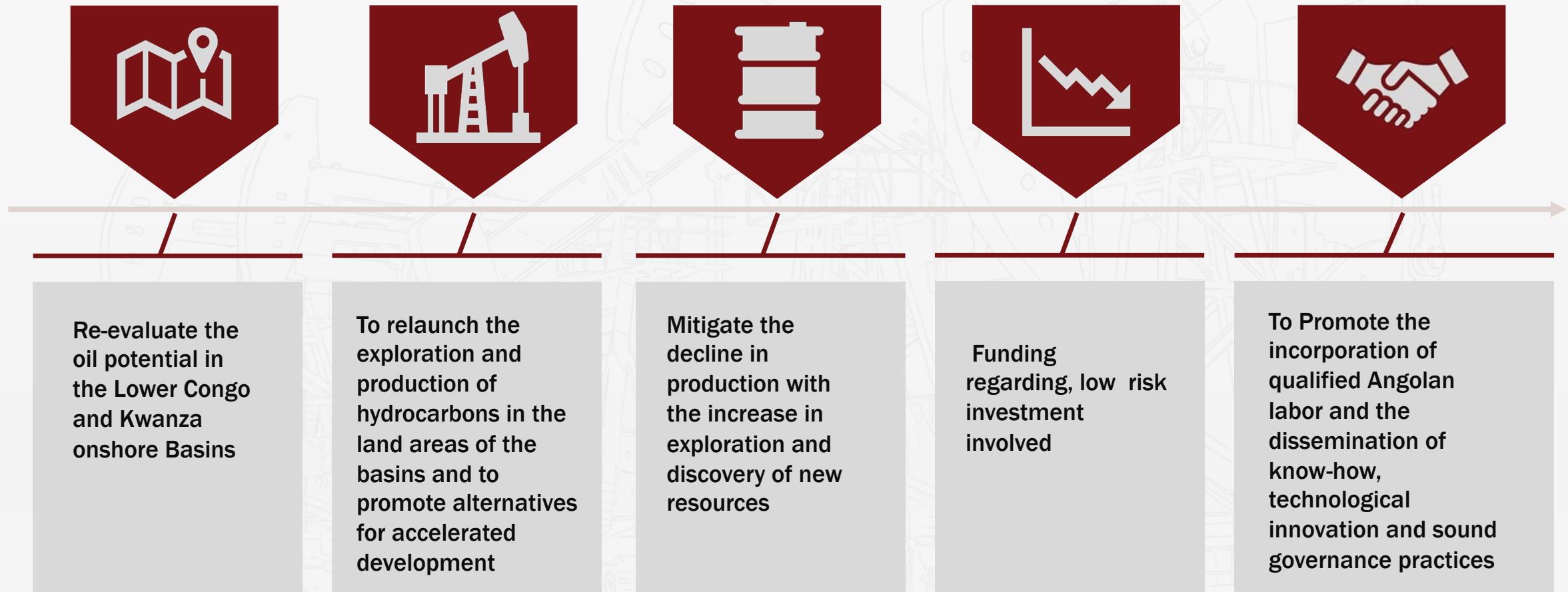


In compliance with the General Strategy for the Awarding of Petroleum Concessions 2019 - 2025, approved by Presidential Decree no. 52/19, it was outlined a specific strategy for bidding **Blocks CON 1, CON 5 and CON 6 (Lower Congo Basin) and KON 5, KON 6, KON 8, KON 9, KON 17 and KON 20 (Kwanza Basin).**

In order to provide insight to investors on the bidding blocks and on the feasibility conditions for the onshore petroleum operations, we present the following subject:

- ❖ **Technical Assessment of the Blocks**
- ❖ **Data Package**
- ❖ **Legislation Guidelines**
- ❖ **Environmental Aspects**
- ❖ **Logistic Conditions**
- ❖ **Commercial Terms**
- ❖ **Bidding Round Process**

## 2020 ONSHORE STRATEGY



## EXPLORATION AND PRODUCTION HISTORY - I

**1900**

**1<sup>st</sup> Exploration  
Record (Onshore  
Lower Congo e  
Kwanza)**



**1952**

**2<sup>nd</sup> Exploration  
Phase (Onshore  
Lower Congo e  
Kwanza)**



**1915**

**1<sup>st</sup> Exploration Phase  
(Onshore Lower Congo  
e Kwanza)**



**1972**

**1<sup>st</sup> Production  
Field**

**Benfica  
(Onshore Kwanza -  
Quenguela)**



**ExxonMobil**



## EXPLORATION AND PRODUCTION HISTORY - II

**1980**

**1<sup>st</sup> PSA  
Generation**



**1994**

**2<sup>nd</sup> PSA  
Generation**



**2019**



**Establishing ANPG**

**Agência Nacional de Petróleo, Gás  
e Biocombustíveis**



**ExxonMobil**



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



LUANDA



ZAIRE





**ANPG**  
AGÊNCIA NACIONAL DE PETRÓLEO, GÁS  
E BIOCOMBUSTÍVEIS

ONSHORE CONGO  
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ONSHORE CONGO AND KWANZA BASINS  
LICENSING ROUND . 2020



# TECNICAL EVALUATION



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



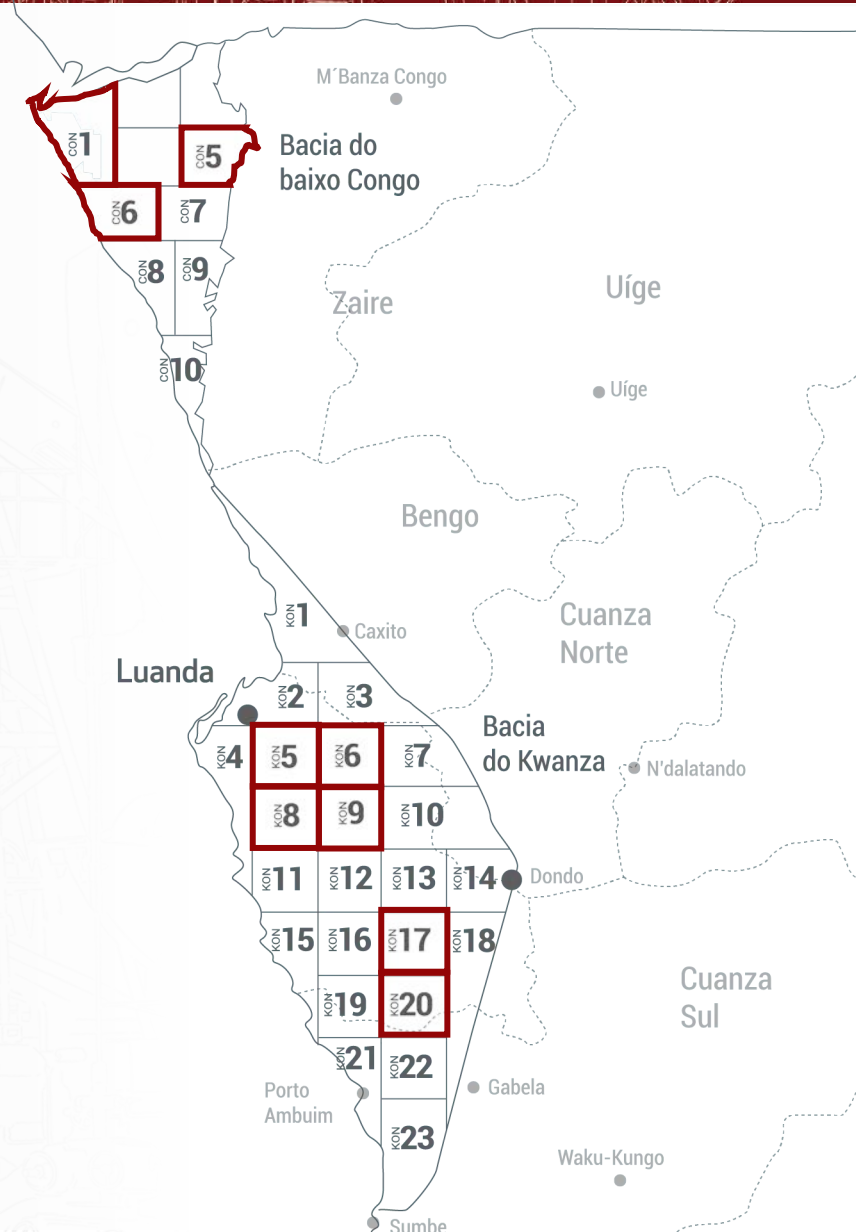
## AVAILABLE BLOCKS

### ☐ Onshore Lower Congo Basin,

- CON1
- CON5
- CON6

### ☐ Onshore Kwanza Basin

- KON5
- KON6
- KON8
- KON9
- KON17
- KON20



## EXPLORATION HISTORY OF THE ONSHORE LOWER CONGO BASIN

- ❑ 1900: First exploration records in the Basin, with campaigns carried out from 1915 onwards;
- ❑ During this period, 8 wells were drilled, which led to the discovery of the Ngondo well;
- ❑ Different 2D seismic campaigns were carried out between 1960 and 2011 with a total coverage of 7 685 km along the Basin;
- ❑ 49 exploration wells were drilled from which 20 discoveries were made;
- ❑ 17 oil and 1 de gas fields were discovered;
- ❑ The high oil potential of pre-Salt and post-Salt was proven from the production at Pinda Fm. (Albian) for over 40 years in the fields of FS / FST Concessions.

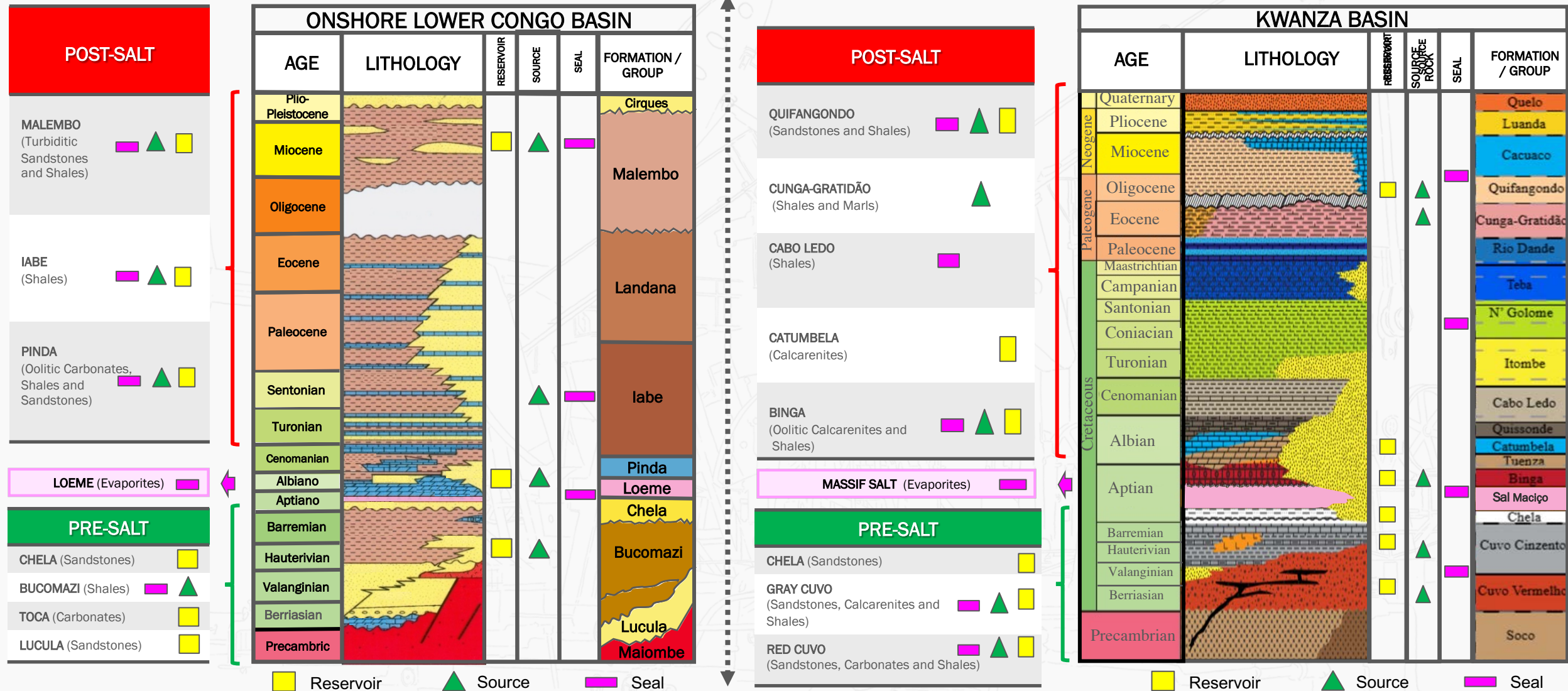
## EXPLORATION HISTORY OF THE ONSHORE KWANZA BASIN

- ❑ 1910-1925: Beginning of exploration activities in the Basin;
- ❑ 1953-2012: The second phase of exploration and active production in the Basin, with the execution of several 2D seismic campaigns and the acquisition of Grav / Mag data throughout the Basin;
- ❑ 127 exploration wells were drilled;
- ❑ 11 oil and 2 gas fields were discovered;
- ❑ Petroleum systems were tested and proven from the 3 plays in the Basin, that is, pre-Salt, Albian and Tertiary.

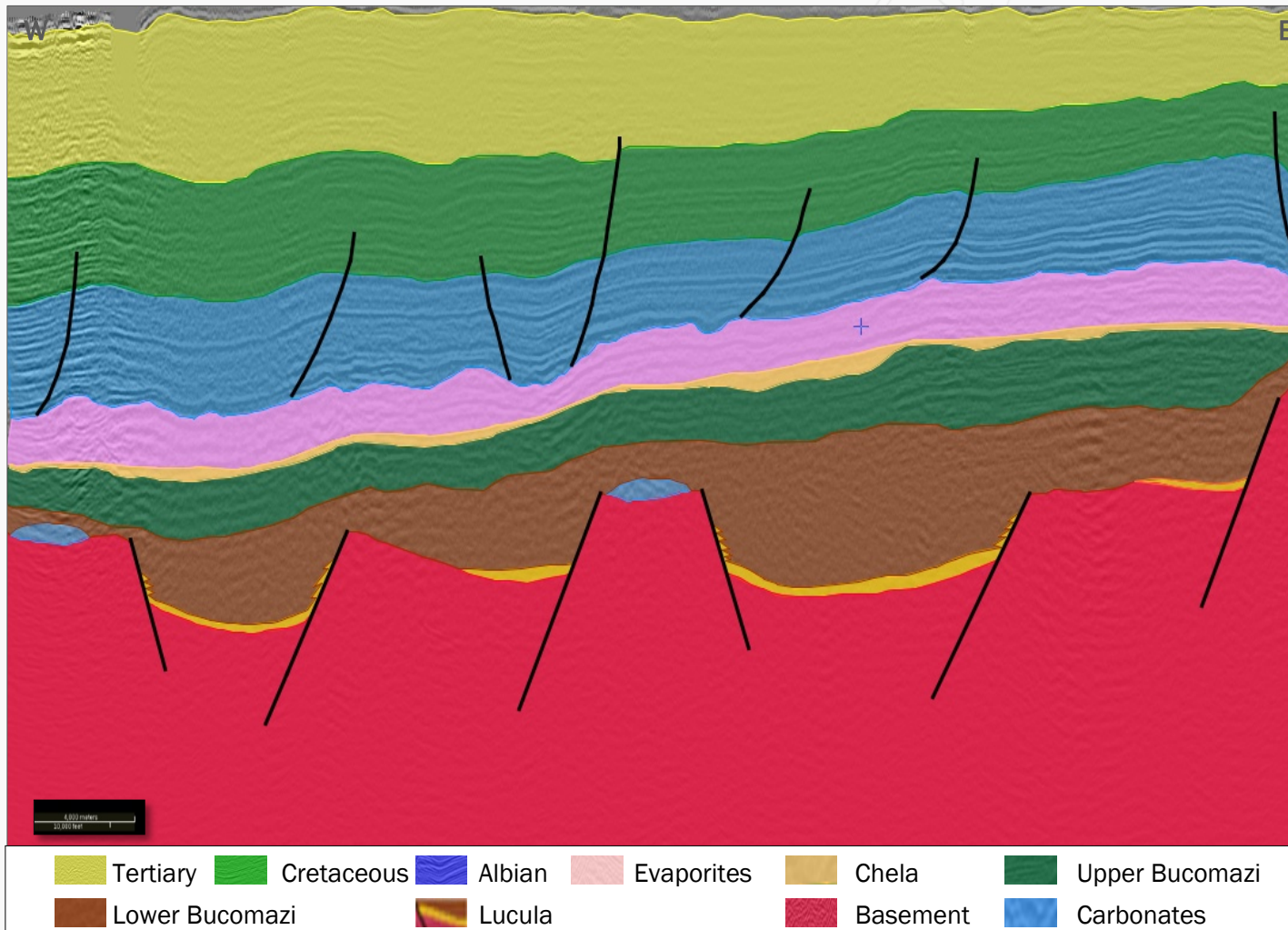
# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## PETROLEUM SYSTEM OF ONSHORE LOWER CONGO AND KWANZA BASINS



## REGIONAL GEOSEISMIC MODEL OF ONSHORE LOWER CONGO BASIN



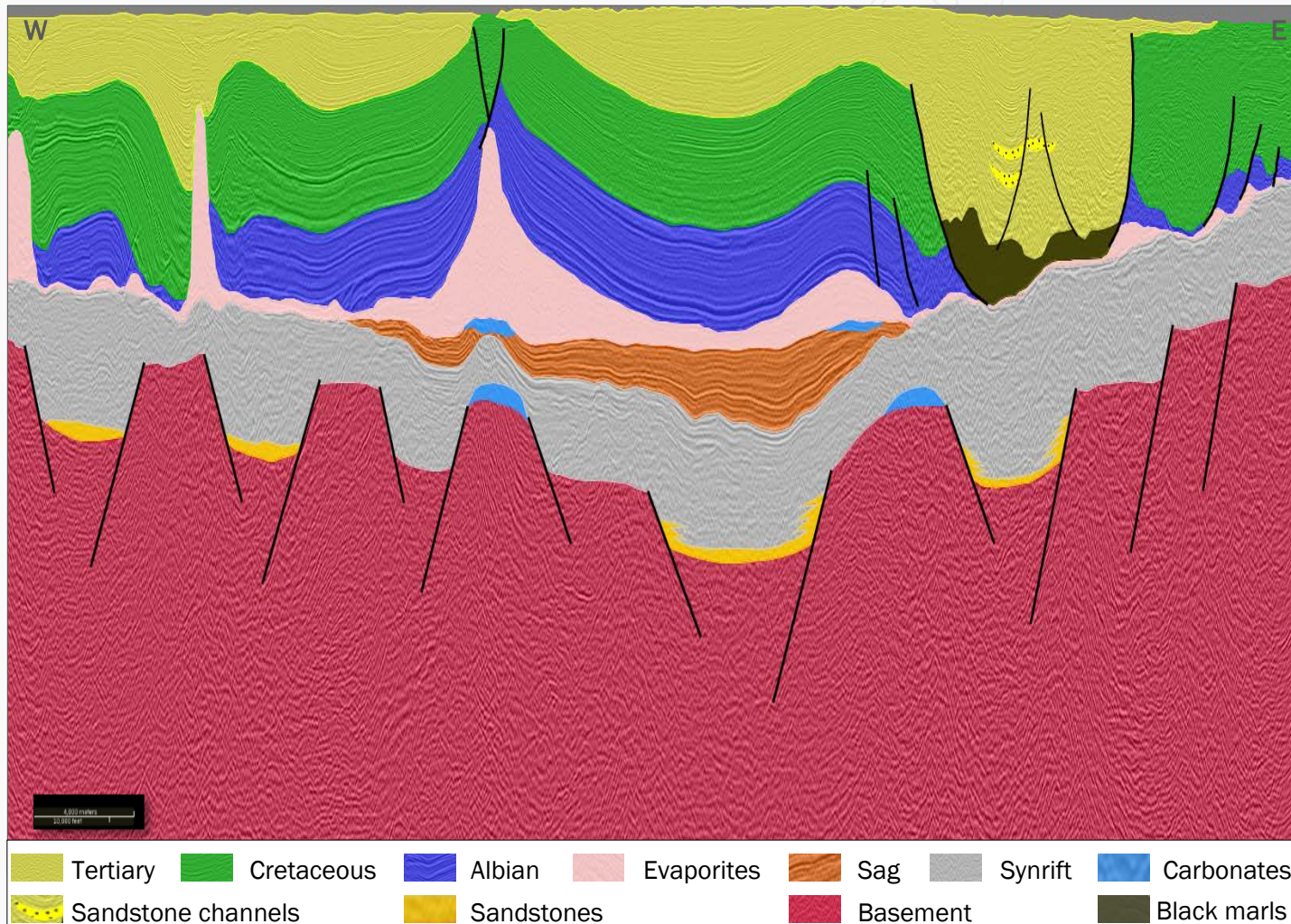
### Post-Salt:

- Moderate salt tectonics in Albian;
- Syndepositional growth faults.

### Pre-Salt:

- Faults rooted in the basement, forming horsts and grabens structures;
- Pinch-out shaped sandstones on the flanks of the horsts;
- Carbonates on the top of the horsts and microbialites in the Sag;
- Evaporitic sequence representing an effective seal at the pre-Salt level.

## REGIONAL GEOSEISMIC MODEL OF ONSHORE KWANZA BASIN



### Post-Salt:

- Strong salt tectonics influence
- Lystric syndepositional growth faults;
- Tertiary troughs and sandstone channels.

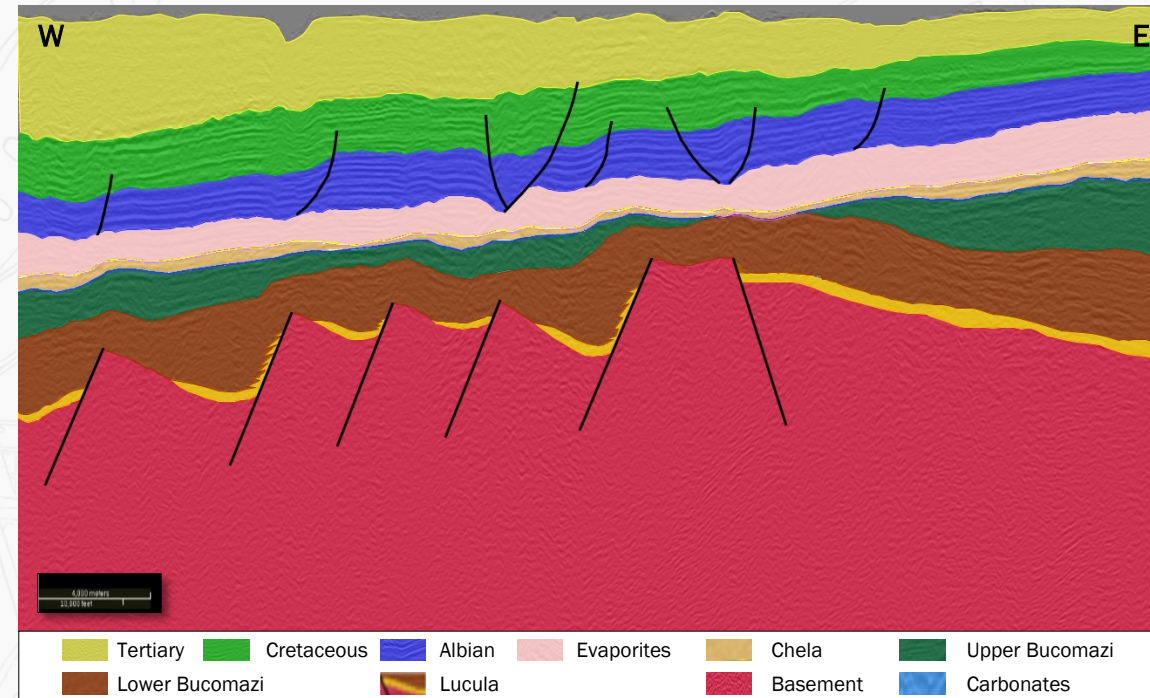
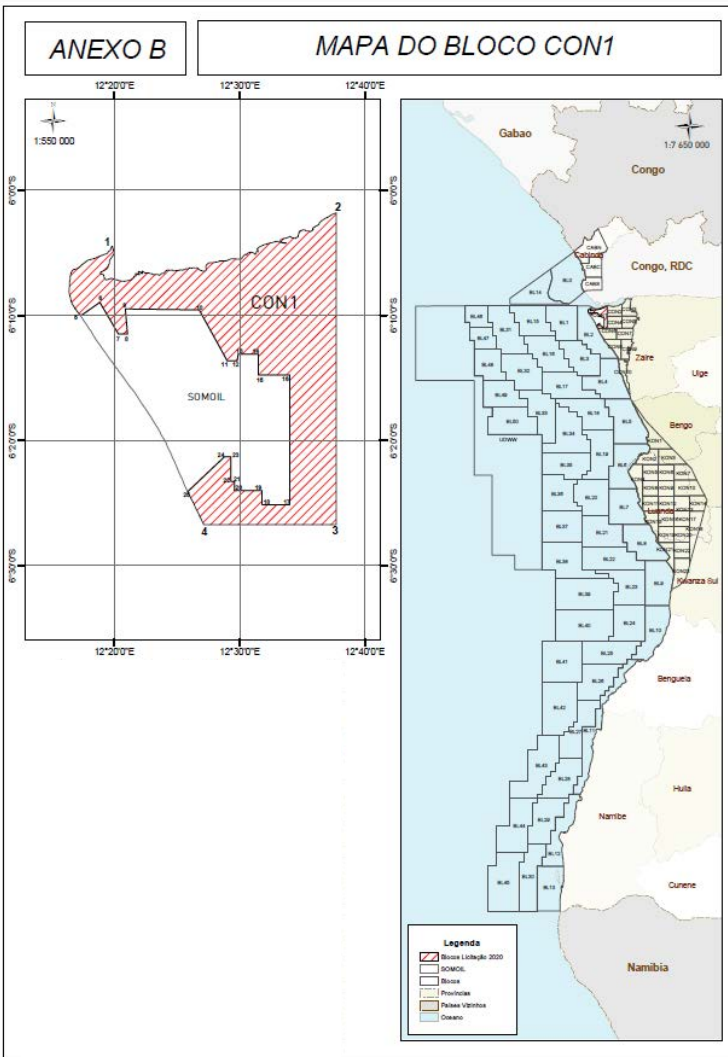
### Pre-Salt:

- Horsts and grabens structures;
- Pinch-out shaped sandstones on the flanks of the horsts;
- Coquinas carbonates on the top of the horsts and microbialites in the Sag;
- Evaporitic sequence.

# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## REGIONAL GEOSEISMIC MODEL OF BLOCK CON 1



### Pre-Salt

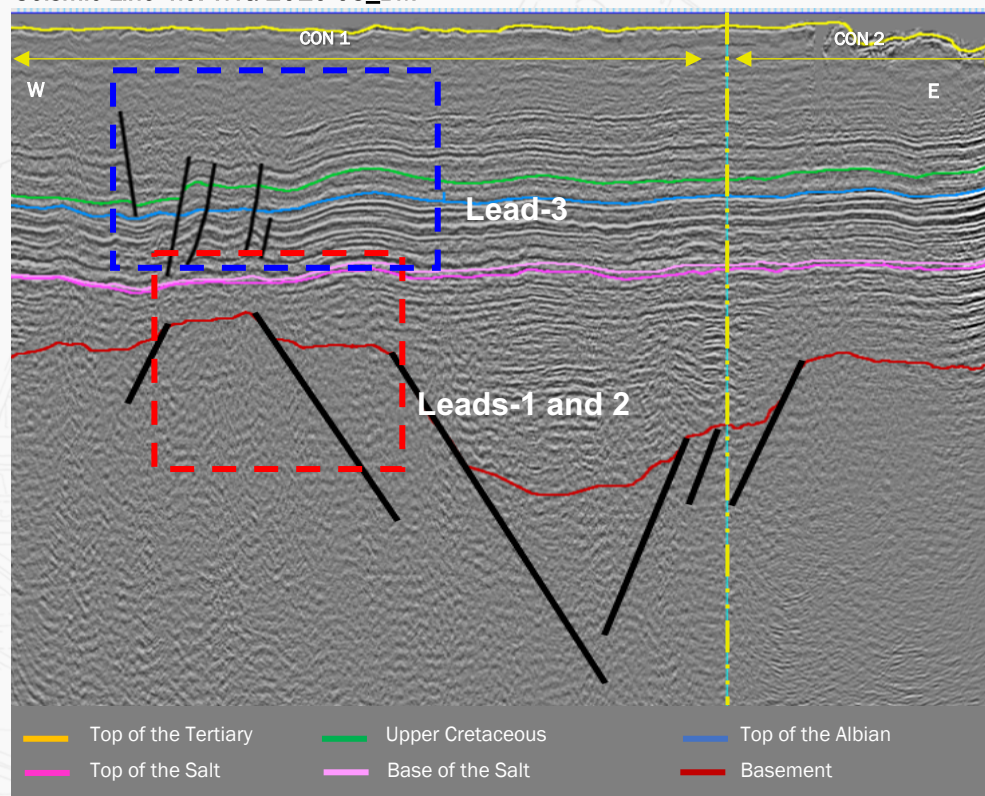
- Moderate tectonic forming horts and half-grabens above which synrift sediments were deposited;
- Chela Fm slightly thick along the base of the Salt;
- Evaporitic sequence (Loeme Fm).

### Post-Salt

- Normal faults at the Albian;
- Thicker Tertiary sedimentary deposition to the West.

## PROSPECTIVITY OF BLOCK CON 1

Seismic Line no. TNG-2010-03\_BM

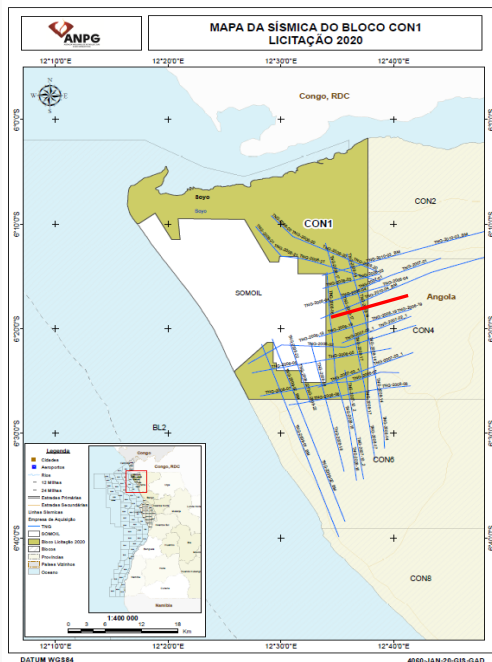


### Pre-Salt Leads-1 and 2:

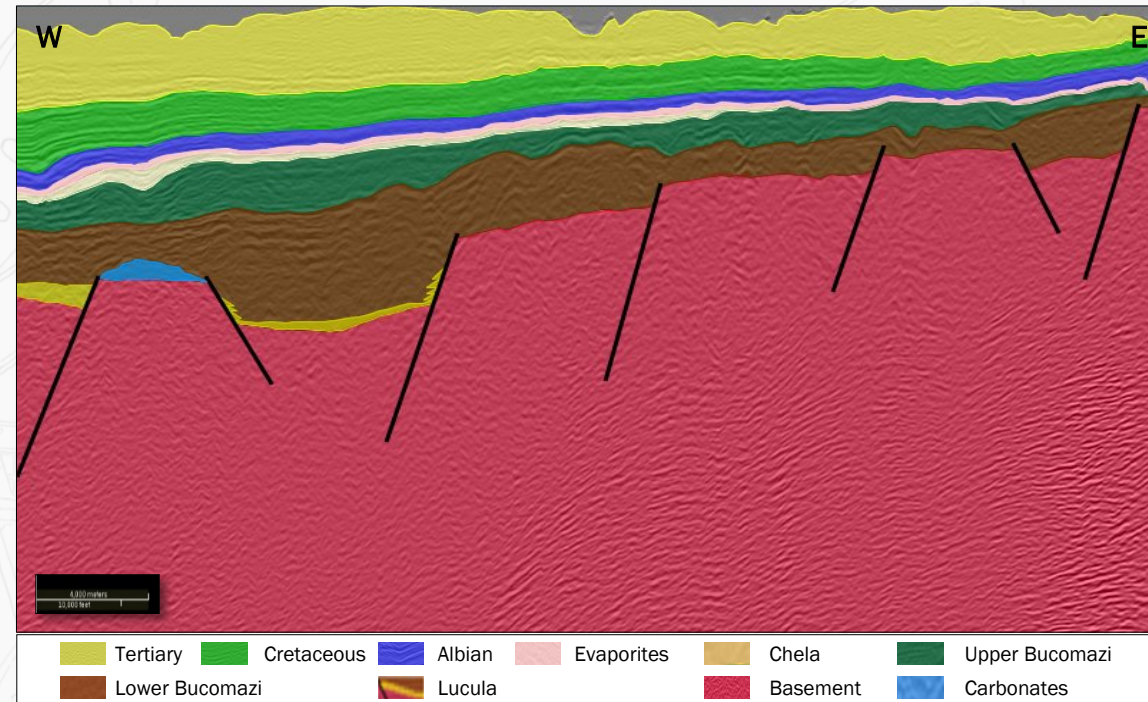
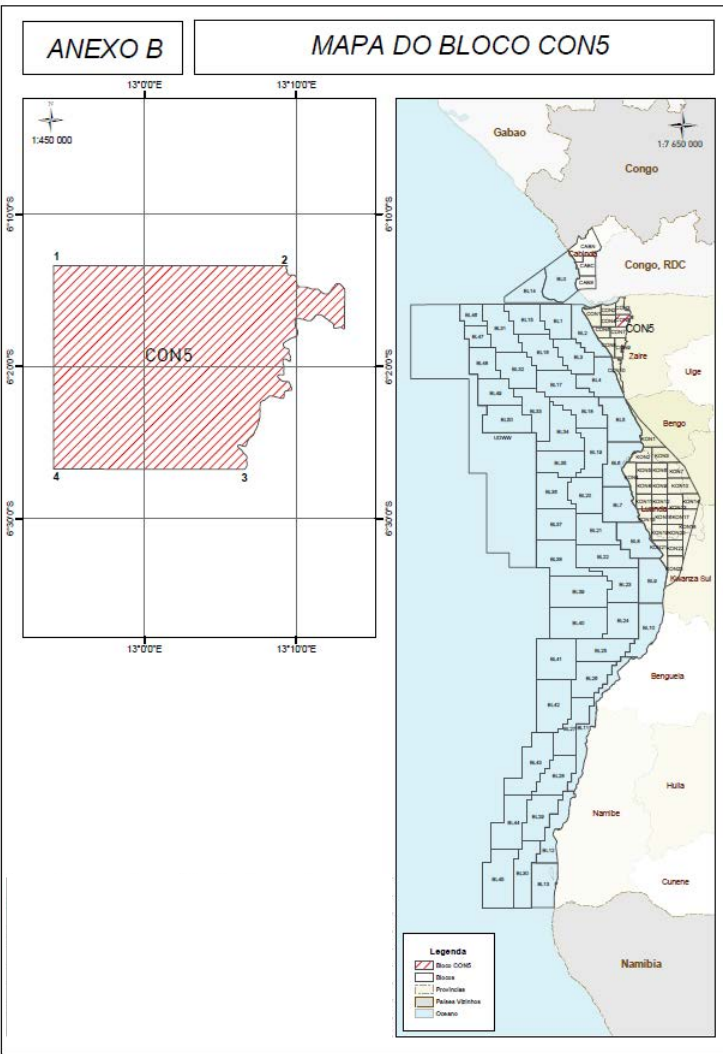
- **Source rock:** Bucomazi Fm. shales
- **Reservoir:** Coquinas carbonates and/or sandstones from the Chela Fm.
- **Seal:** Evaporites of the Loeme Fm.
- **Trap:** Mixed (structural and stratigraphic)

### Post-Salt Lead-3:

- **Source rock:** Shales from the Pinda and/or Bucomazi Fms.
- **Reservoir:** Oolitic carbonates from Pinda Fm.
- **Seal:** Shales from Pinda Fm.
- **Trap:** Mixed (structural and stratigraphic)



## REGIONAL GEOSEISMIC MODEL OF BLOCK CON 5



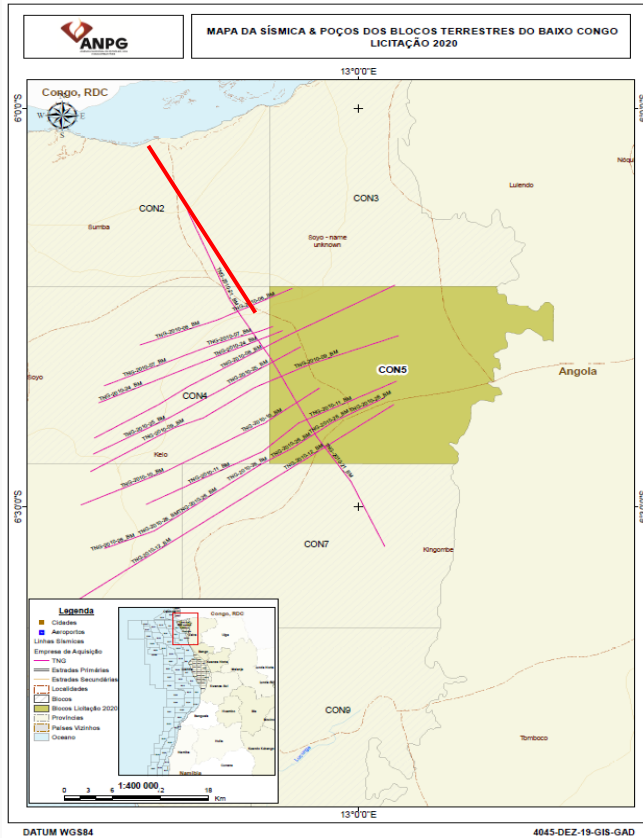
### Pre-Salt

- Faults rooted in the basement forming horsts and grabens;
- Chela Fm slightly thick along the base of the Salt;
- Evaporitic sequence (Loeme Fm).

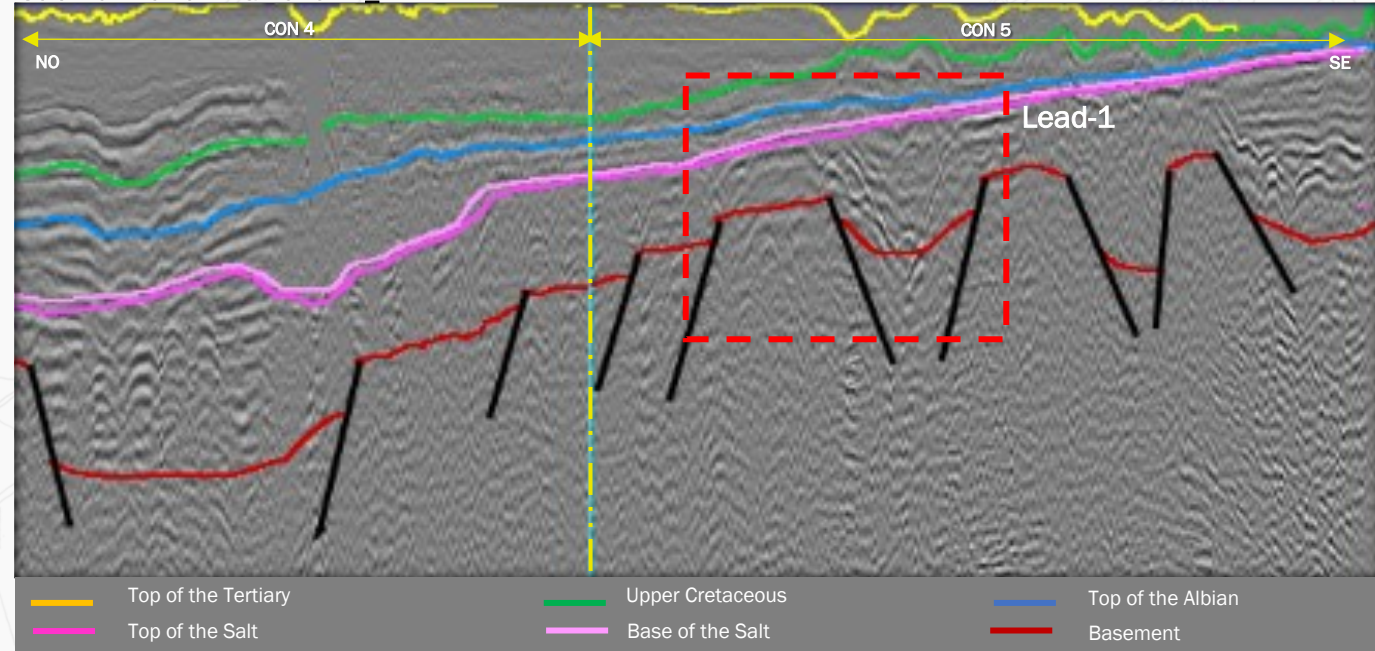
### Post-Salt

- Poorly structured Albian;
- Tertiary with variable thickness along the line, tapering to the east.

## PROSPECTIVITY OF BLOCK CON 5



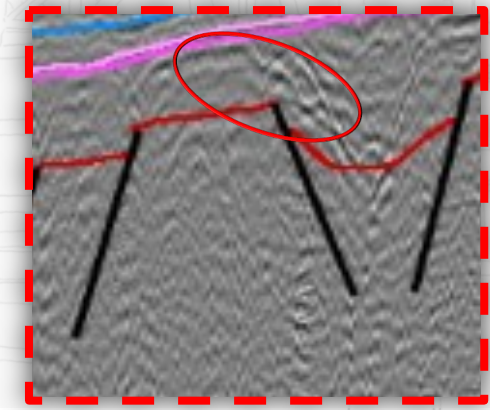
Seismic Line no. TNG-2010-21\_BM



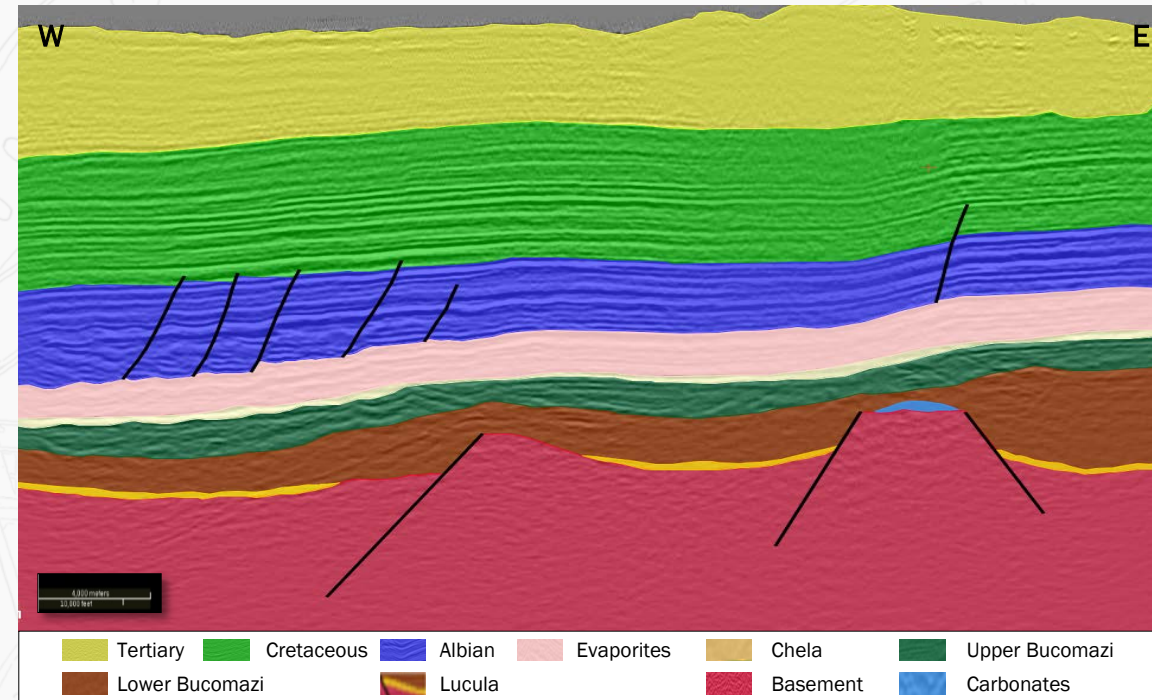
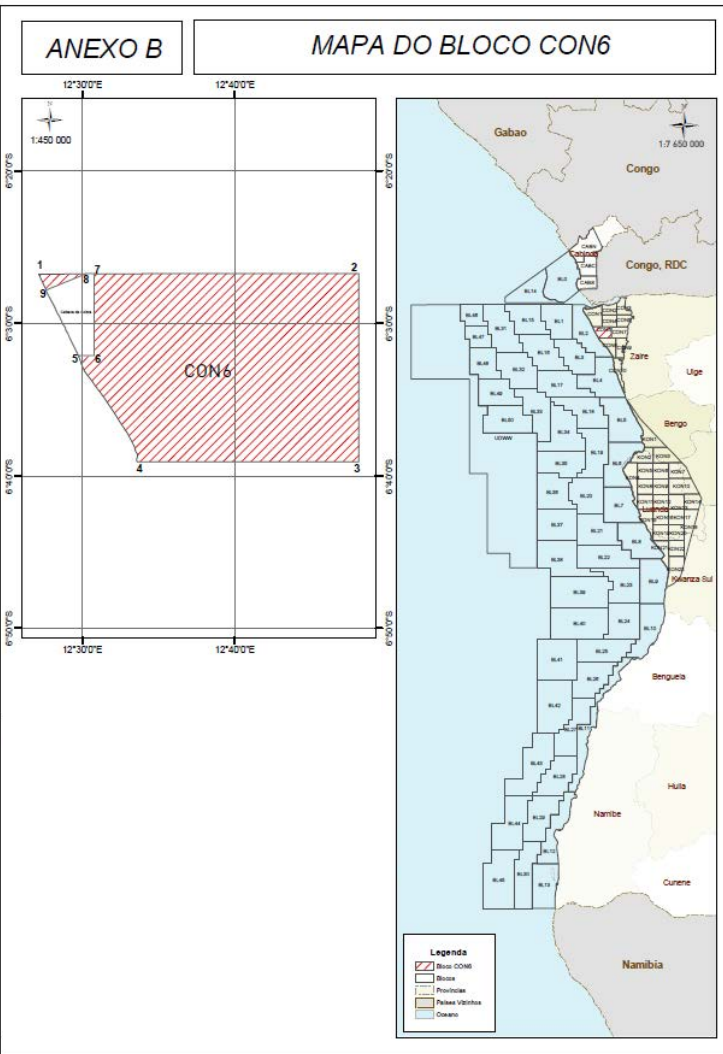
### Pre-Salt

#### Lead-1 :

- **Source rock:** Shales from Bucomazi Fm.
- **Reservoir:** Pinch-out of the Erva Fm. sandstones and coquinas carbonates
- **Seal:** Intraformational shales from Bucomazi Fm. and/or Loeme Fm. evaporites
- **Trap:** Mixed (structural and stratigraphic)



## REGIONAL GEOSEISMIC MODEL OF BLOCK CON 6



### Pre-Salt

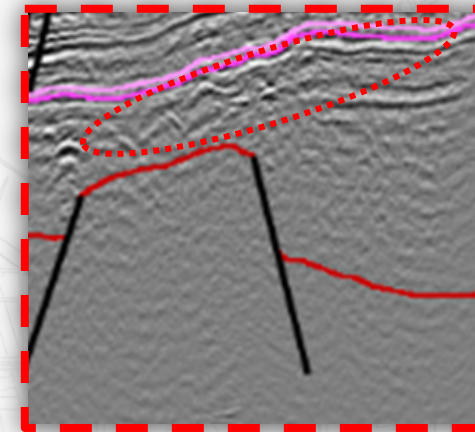
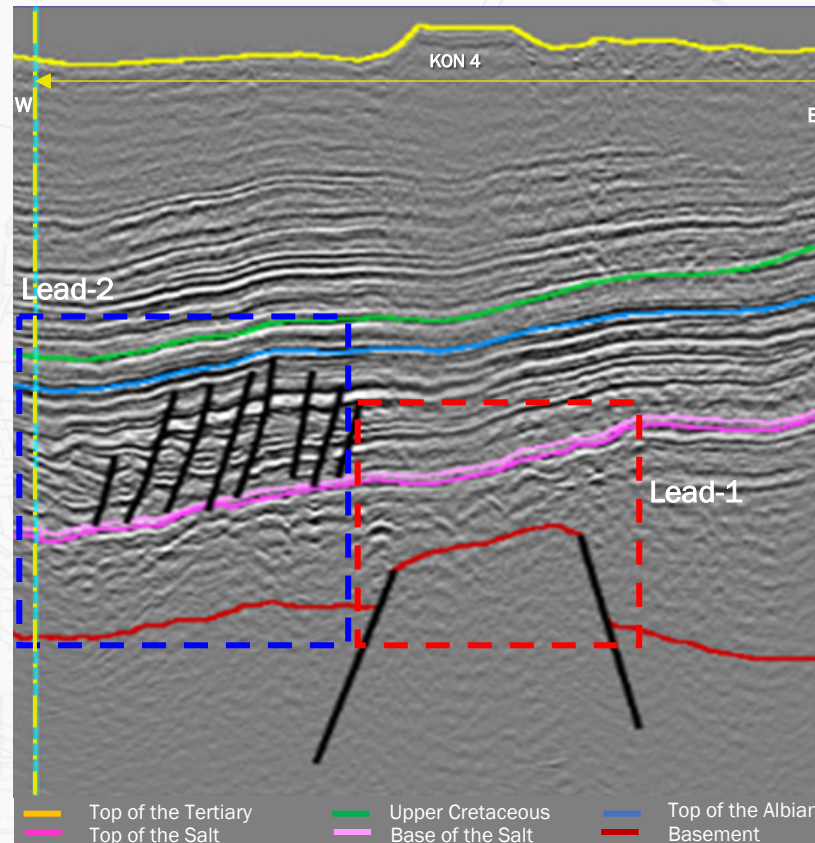
- Faults rooted in the basement forming horsts and grabens;
- Chela Fm slightly thick along the base of the Salt;
- Evaporitic sequence (Loeme Fm).

### Post-Salt

- Poorly thick and structured Albian;
- Tertiary very thick along the Block.

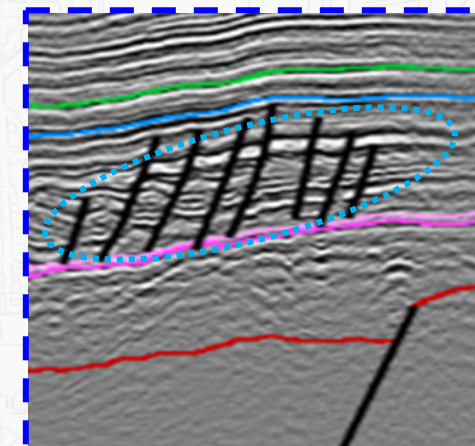
## PROSPECTIVITY OF BLOCK CON 6

Seismic Line no. TNG-2008-11



### Pre-Salt Lead-1:

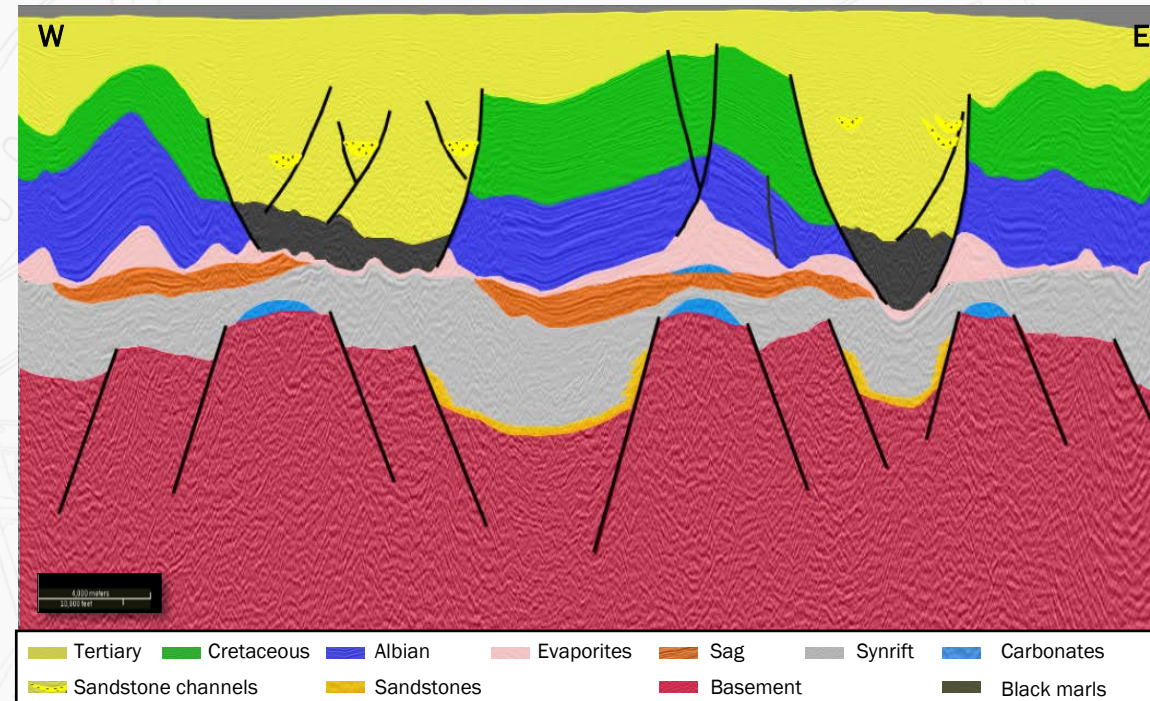
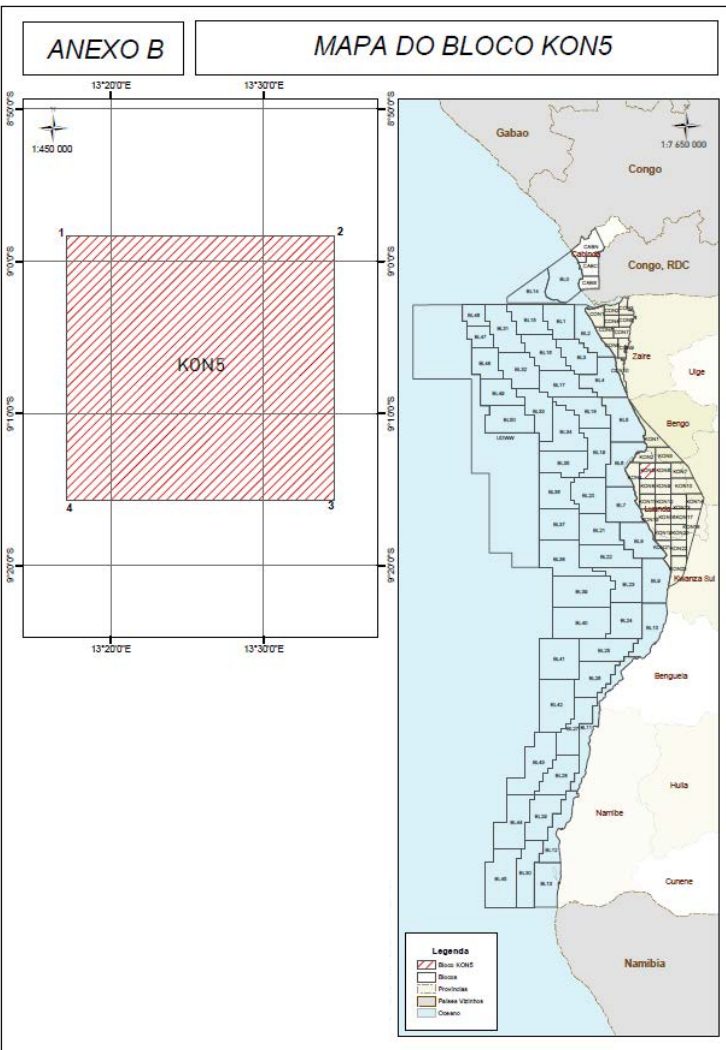
- **Source rock:** Bucomazi Fm. shales
- **Reservoir:** Sandstones from the Chela Fm.
- **Seal:** Intraformational shales from Bucomazi Fm. and/or Loeme Fm. evaporites
- **Trap:** Mixed (structural and stratigraphic)



### Post-Salt Lead-2:

- **Source rock:** Shales from the Pinda and/or Bucomazi Fms.
- **Reservoir:** Oolitic carbonates from Pinda Fm.
- **Seal:** Shales from Pinda Fm.
- **Trap:** Mixed (structural and stratigraphic)

## REGIONAL GEOSEISMIC MODEL OF BLOCK KON 5



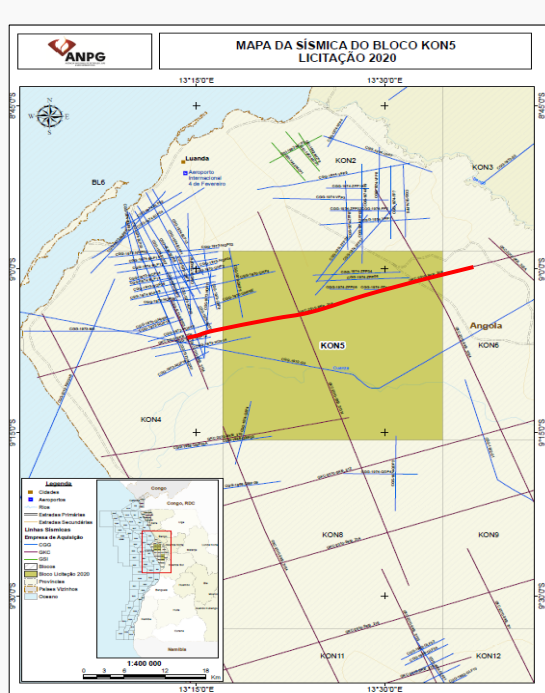
### Pre-Salt

- Faults basement with horsts and grabens;
- Visible sag in the west and center of the seismic line;
- Evaporitic sequence (Massive Salt Fm).

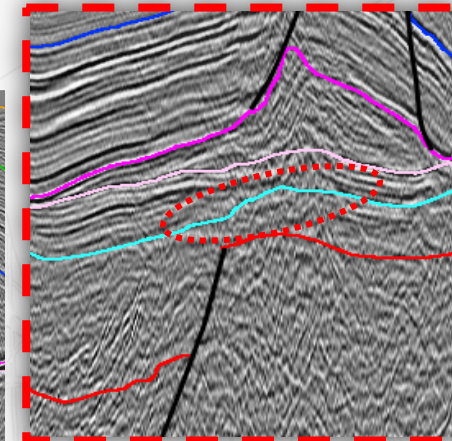
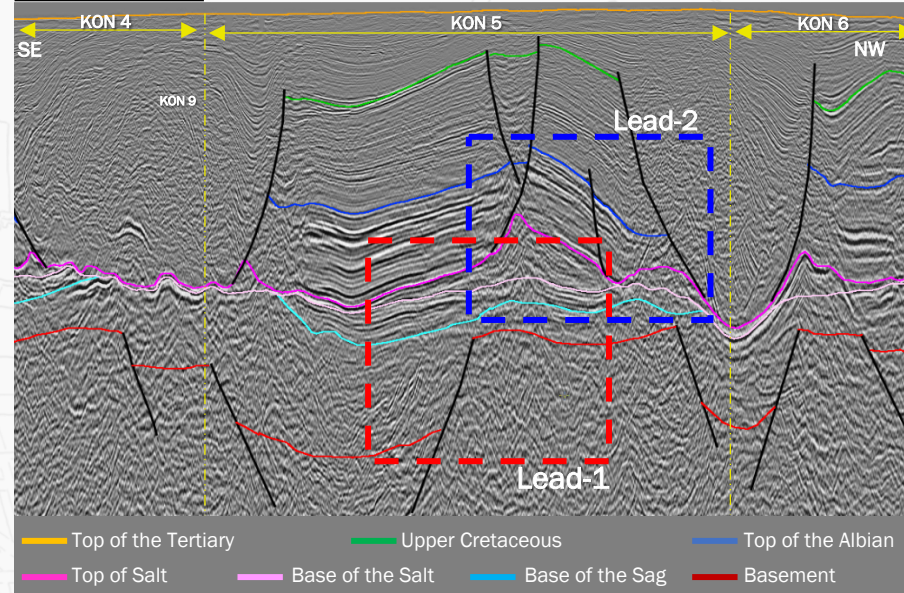
### Post-Salt

- Thick and faulted Albian;
- Thick Tertiary with post-depositional extensional faults and occurrence of Quenguela and Funda troughs.

## PROSPECTIVITY OF BLOCK KON 5

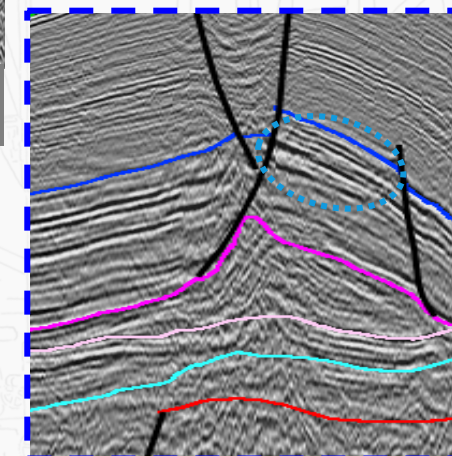


Seismic Line no. GKC-2010-SKB\_208



### Pre-Salt Lead-1:

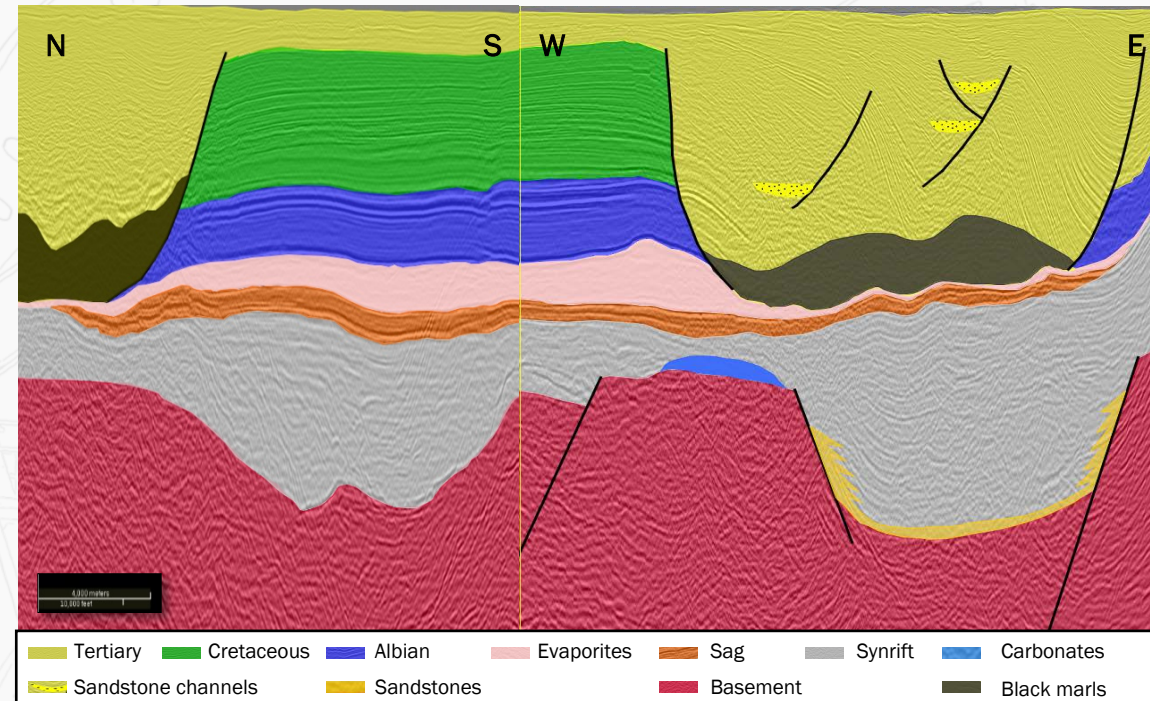
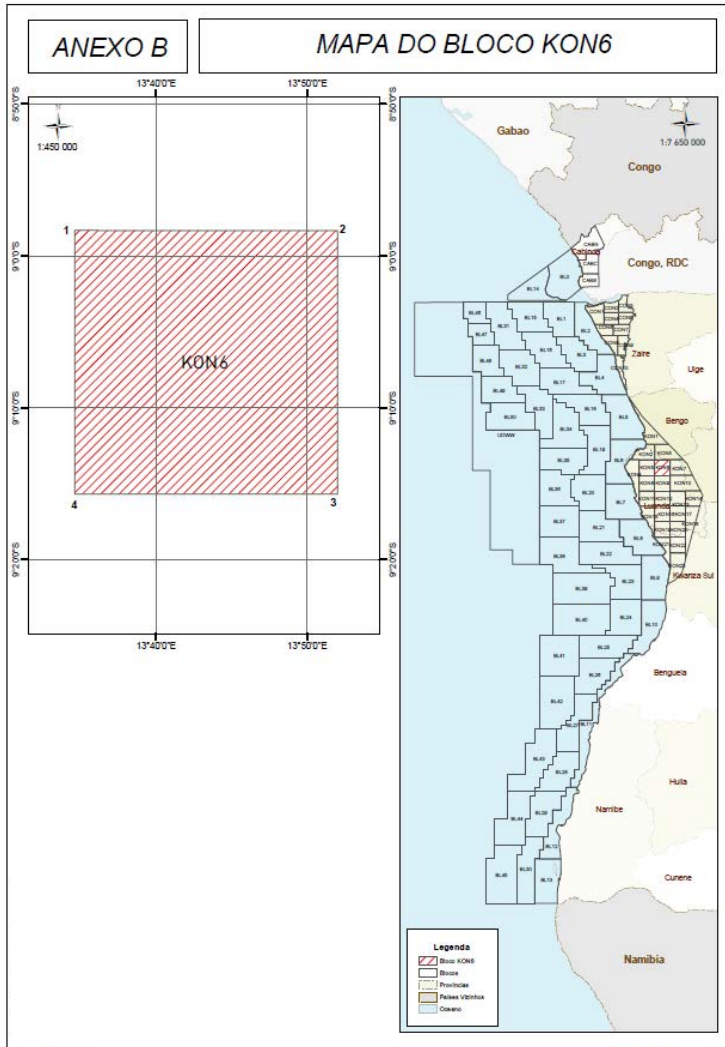
- **Source rock:** Red Cuvo Fm. shales
- **Reservoir:** Sandstones or microbial carbonates from the Chela equivalent Fm.
- **Seal:** Massive Salt Fm. evaporites
- **Trap:** Mixed (structural and stratigraphic)



### Post-Salt Lead-2:

- **Source rock:** Shales from the Binga Fm.
- **Reservoir:** Carbonates from Catumbela Fm.
- **Seal:** Shales from the upper Cretaceous Cabo Ledo Fm.
- **Trap:** Mixed (structural and stratigraphic)

## REGIONAL GEOSEISMIC MODEL OF BLOCK KON 6



### Pre-Salt

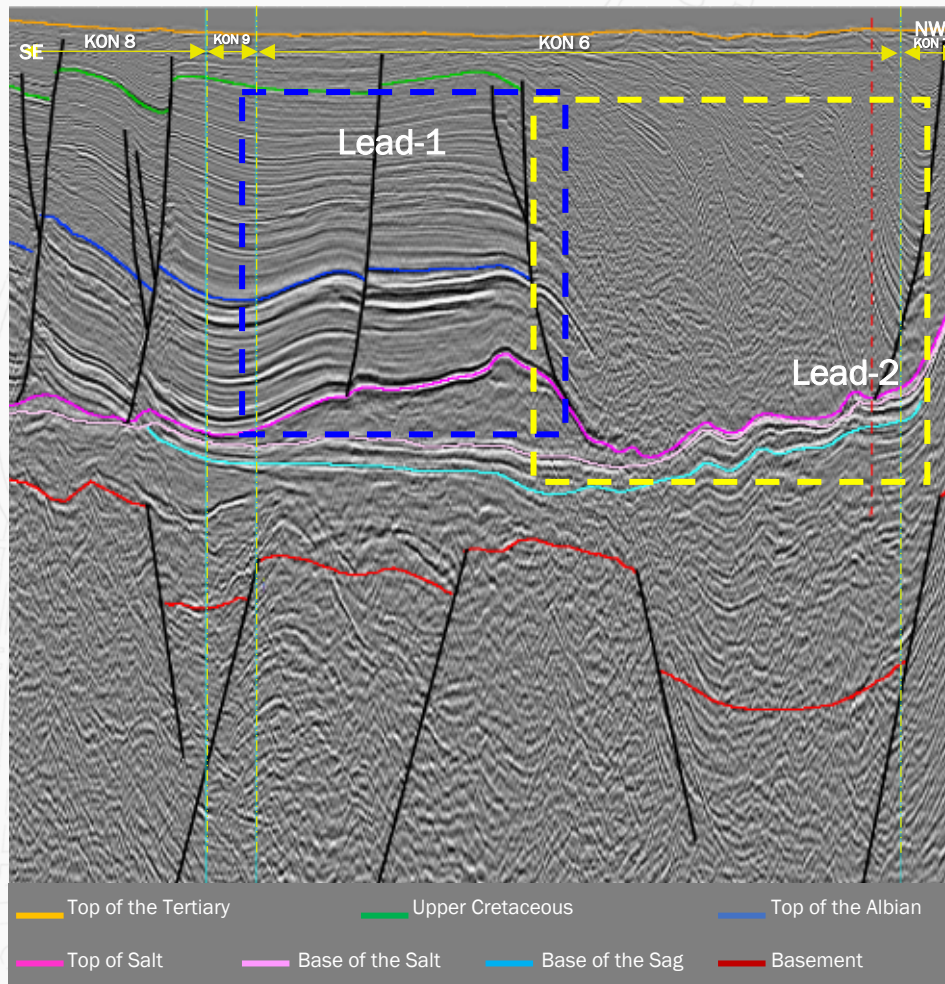
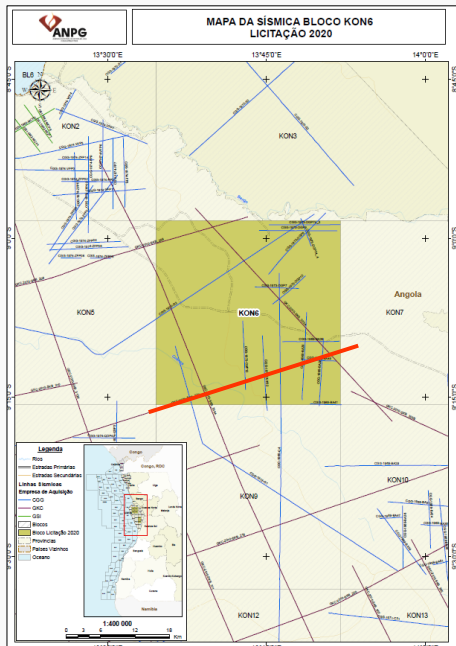
- Faults basement with horsts and grabens;
- Visible sag in a large extension of the Block;
- Evaporitic sequence (Massive Salt Fm).

### Post-Salt

- Thick and lightly faulted Albian;
- Thick Tertiary with post-depositional extensional faults and occurrence of two troughs.

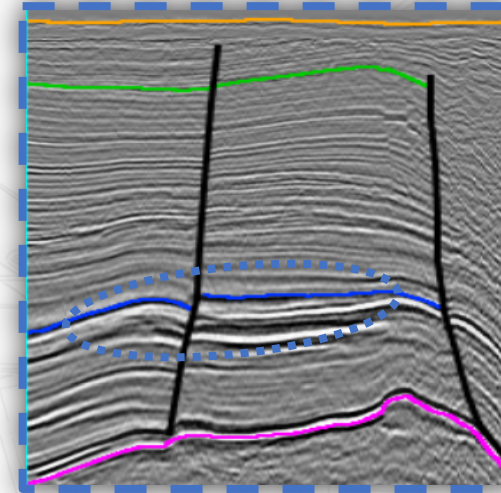
## PROSPECTIVITY OF BLOCK KON 6

Seismic Line no. GKC-2010-SKB\_212



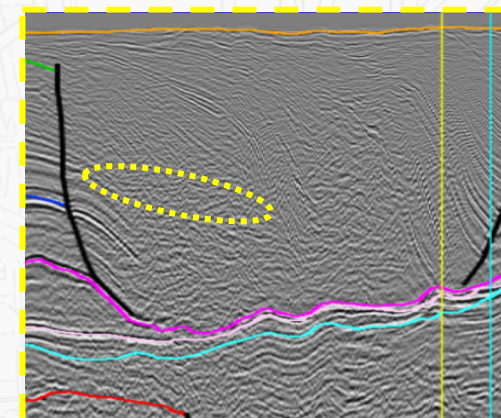
### Post-Salt Lead-1:

- **Source rock:** Shales from Quifangondo, Cunda and/or Cuvo Fms.
- **Reservoir:** Sandstones channels from the Quifangondo Fm.
- **Seal:** Intraformational shales from the Quifangondo Fm.
- **Trap:** Mixed (structural and stratigraphic)

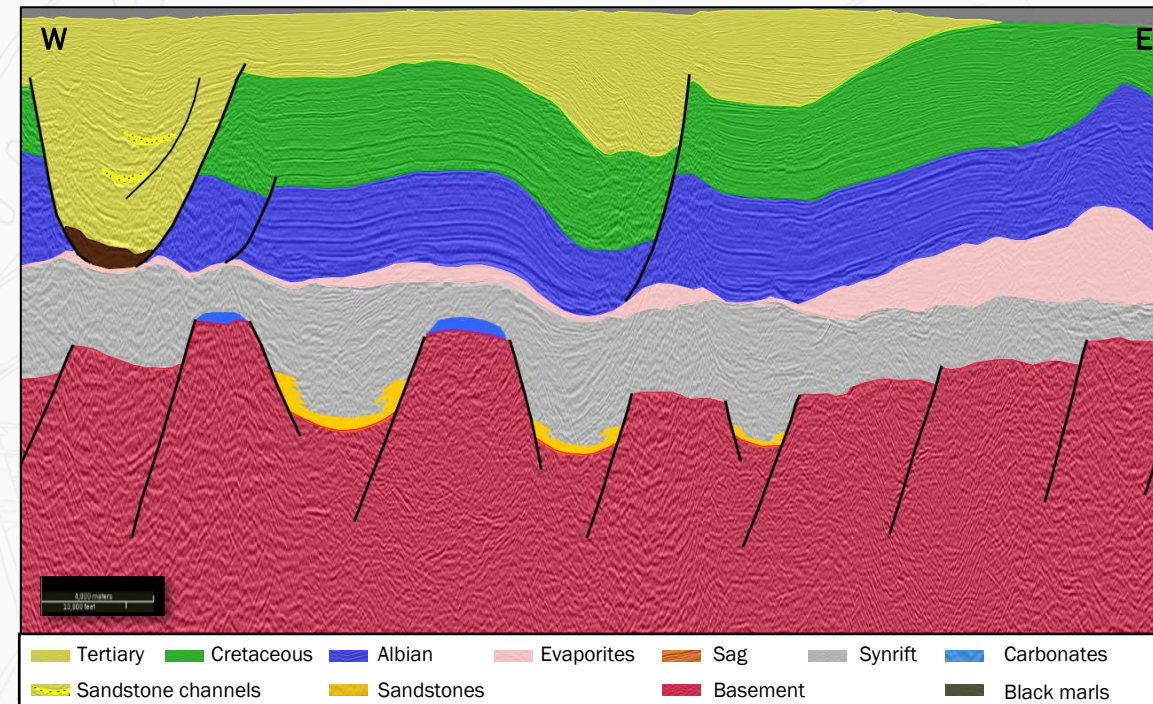
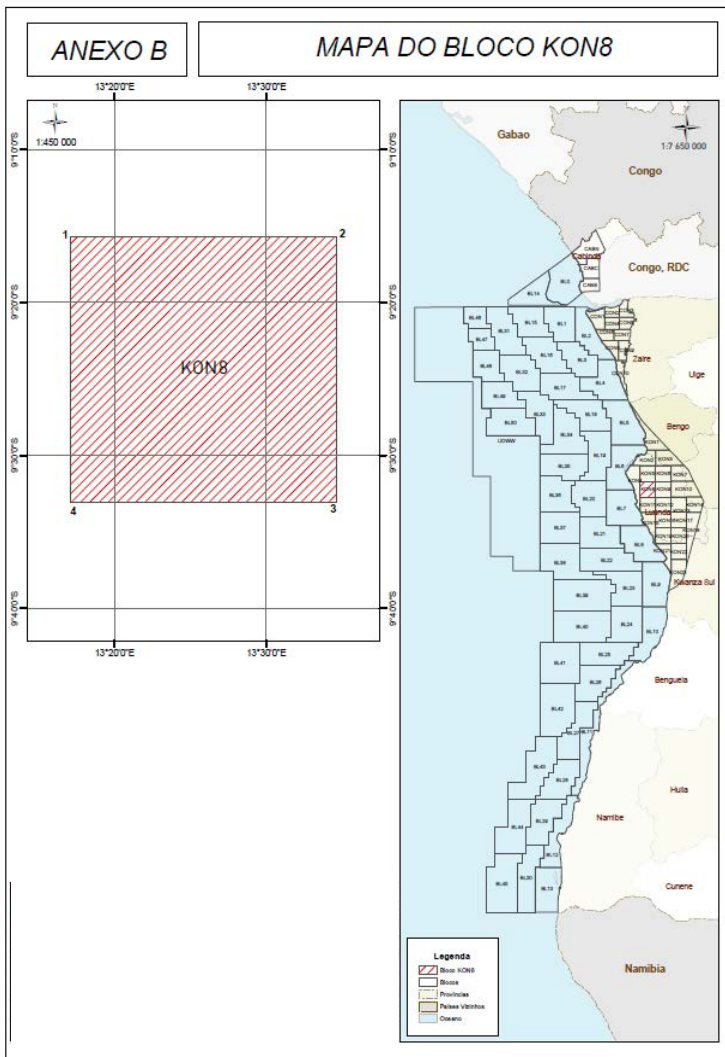


### Post-Salt Lead-2:

- **Source rock:** Shales from the Binga Fm.
- **Reservoir:** Carbonates from Catumbela Fm.
- **Seal:** Shales from the Cabo Ledo Fm.
- **Trap:** Mixed (structural and stratigraphic)



## REGIONAL GEOSEISMIC MODEL OF BLOCK KON 8



### Pre-Salt

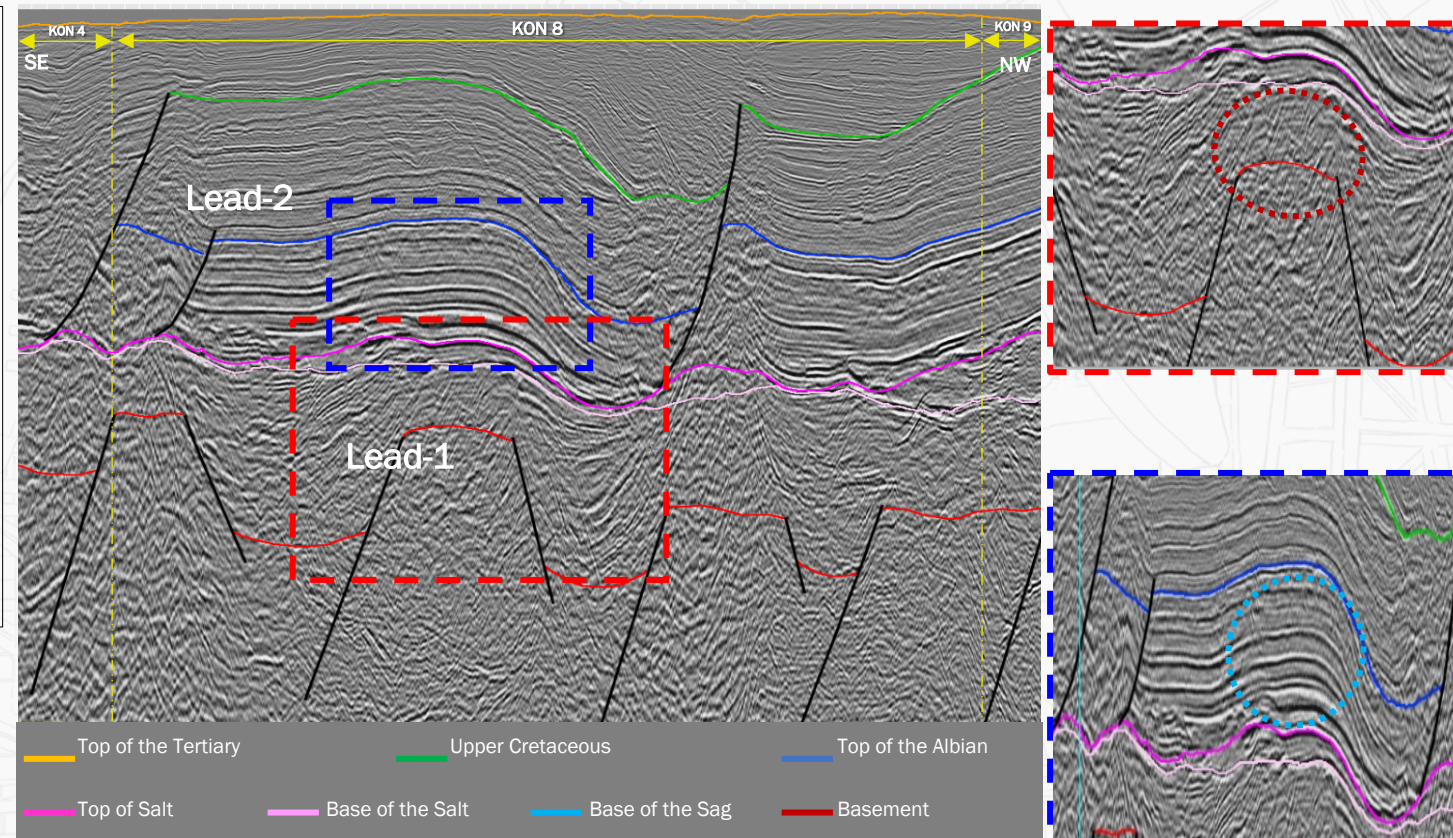
- Highly faulted basement with horsts and grabens;
- Evaporitic sequence (Massive Salt Fm).

### Post-Salt

- Thick Albian with normal faults and antiform structures;
- Thick Tertiary with post-depositional extensional faults and occurrence of one trough.

## PROSPECTIVITY OF BLOCK KON 8

Seismic Line no. GKC-2010-SKB\_214



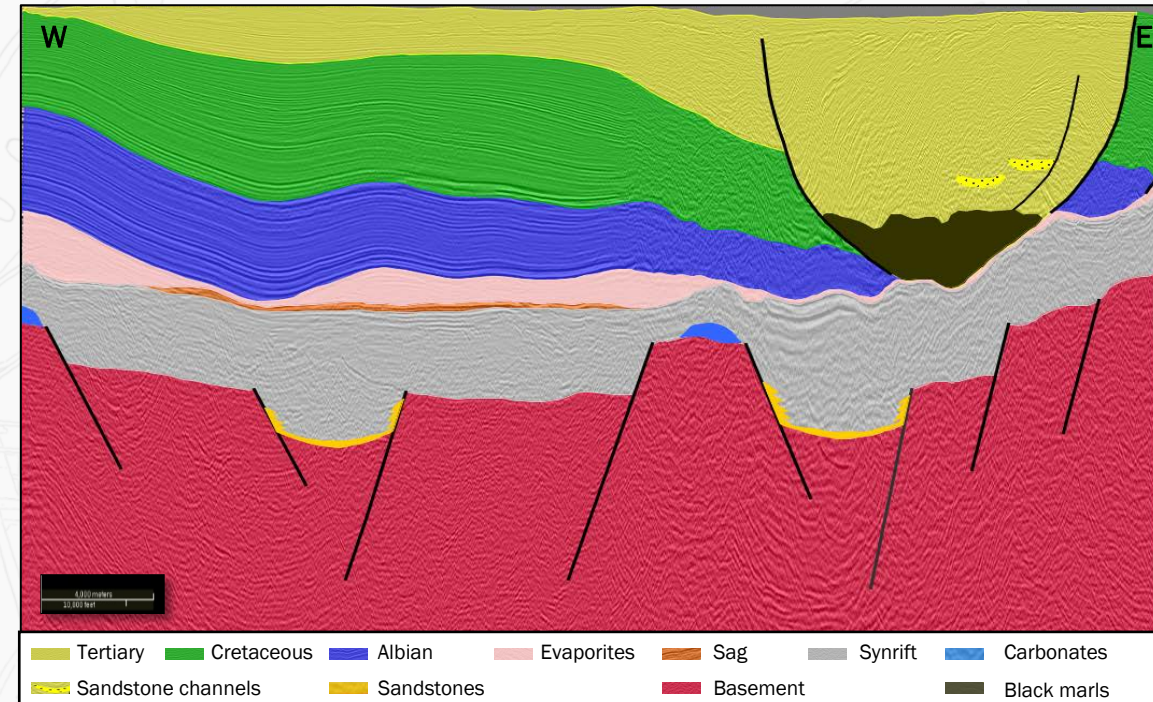
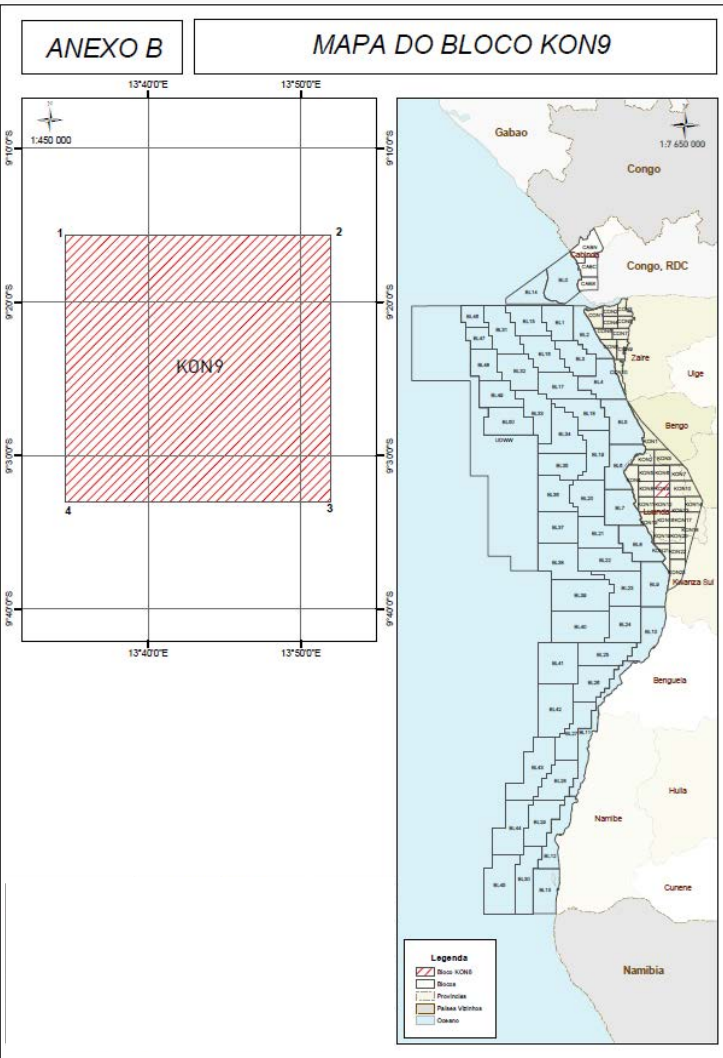
### Pre-Salt Lead-1:

- **Source rock:** Shales from Red Cuvo Fm.
- **Reservoir:** Coquinas carbonates from the Red Cuvo Fm.
- **Seal:** Intraformational shales and/or evaporites from the Massive Salt Fm.
- **Trap:** Mixed (structural and stratigraphic)

### Post-Salt Lead-2:

- **Source rock:** Shales from the Binga and/or Cuvo Fms.
- **Reservoir:** Oolitic carbonates from Binga Fm.
- **Seal:** Shales from the Cabo Ledo Fm.
- **Trap:** Mixed (structural and stratigraphic)

## REGIONAL GEOSEISMIC MODEL OF BLOCK KON 9



### Pre-Salt

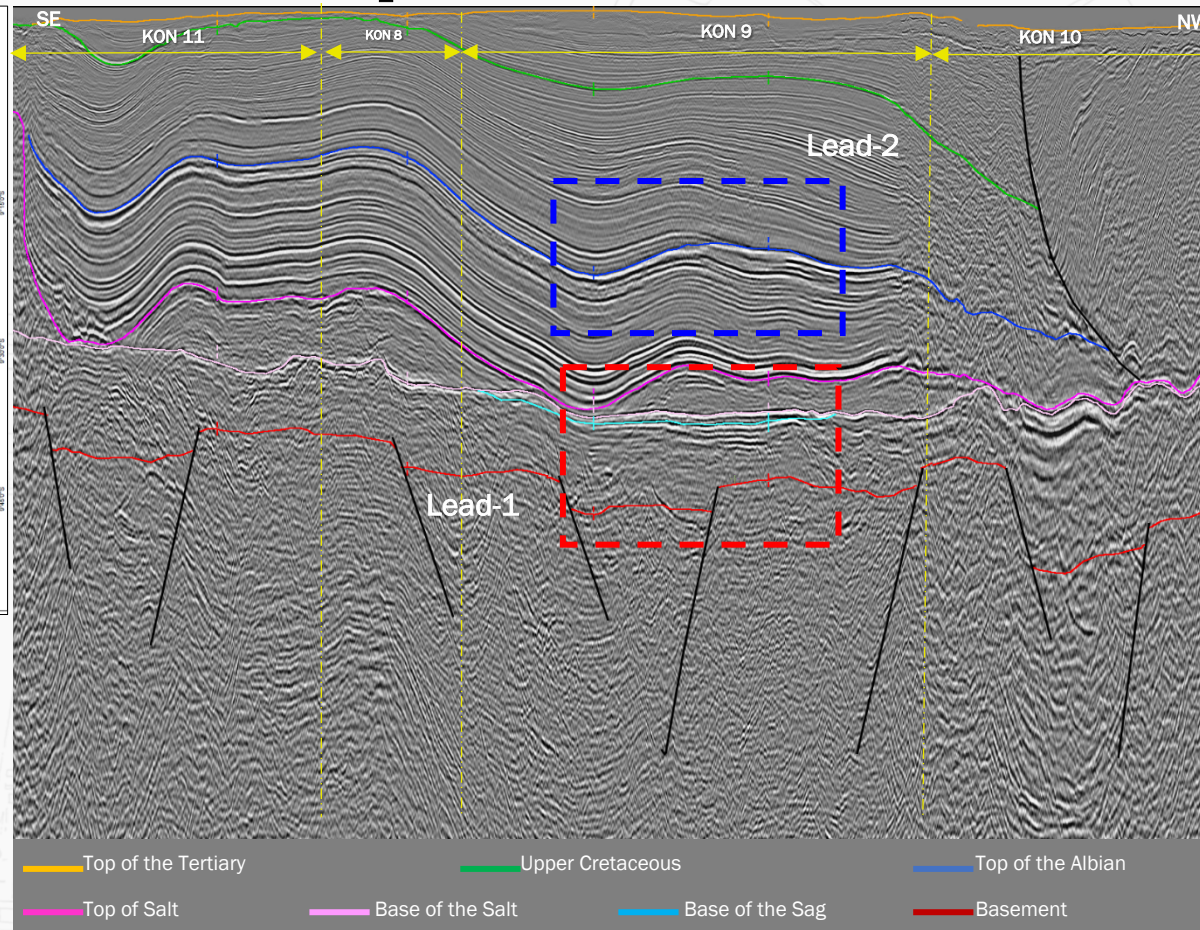
- Highly faulted basement with horsts and grabens;
- Sag occurs locally;
- Evaporitic sequence (Massive Salt Fm).

### Post-Salt

- Thick and lightly faulted Albian;
- Thick Tertiary with post-depositional extensional faults and occurrence of one trough.

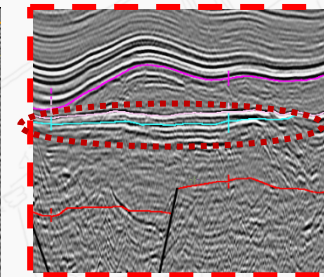
## PROSPECTIVITY OF BLOCK KON 9

Seismic Line no. GKC-2010-SKB\_216



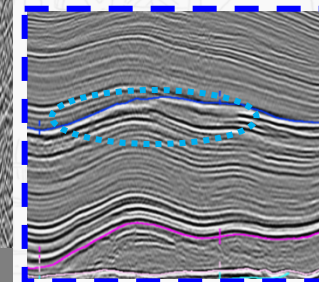
### Pre-Salt Lead-1:

- **Source rock:** Shales from Red Cuvo Fm.
- **Reservoir:** Sandstones from the Gray Cuvo Fm.
- **Seal:** Evaporites from the Massive Salt Fm.
- **Trap:** Mixed (structural and stratigraphic)-

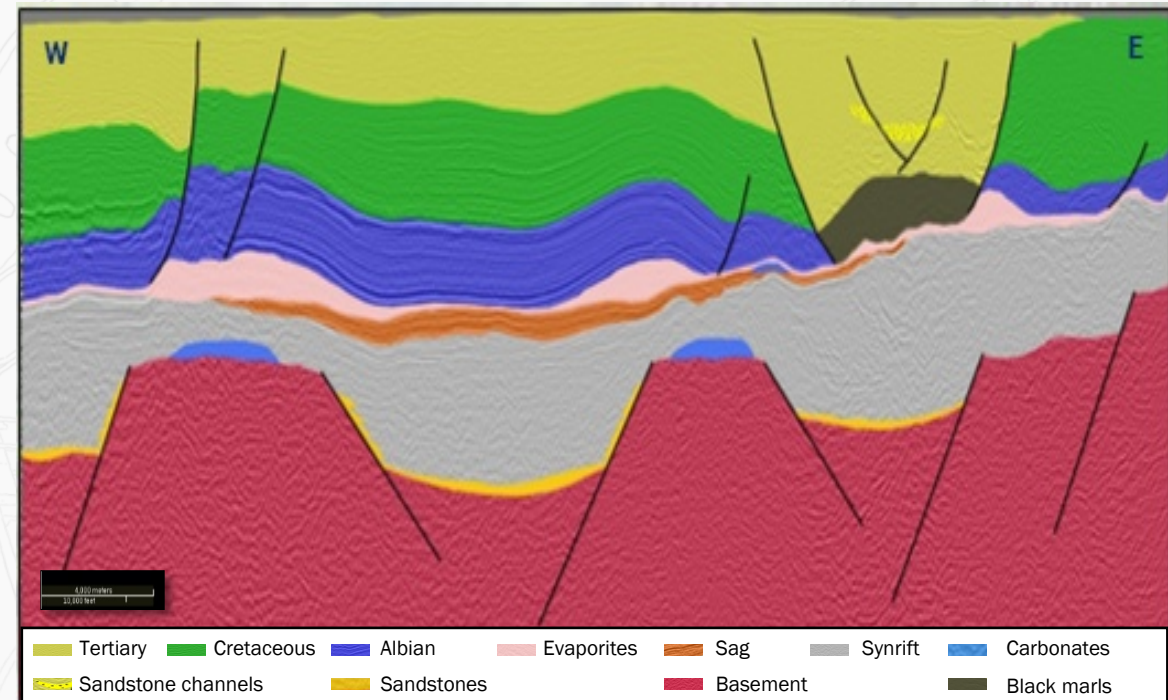
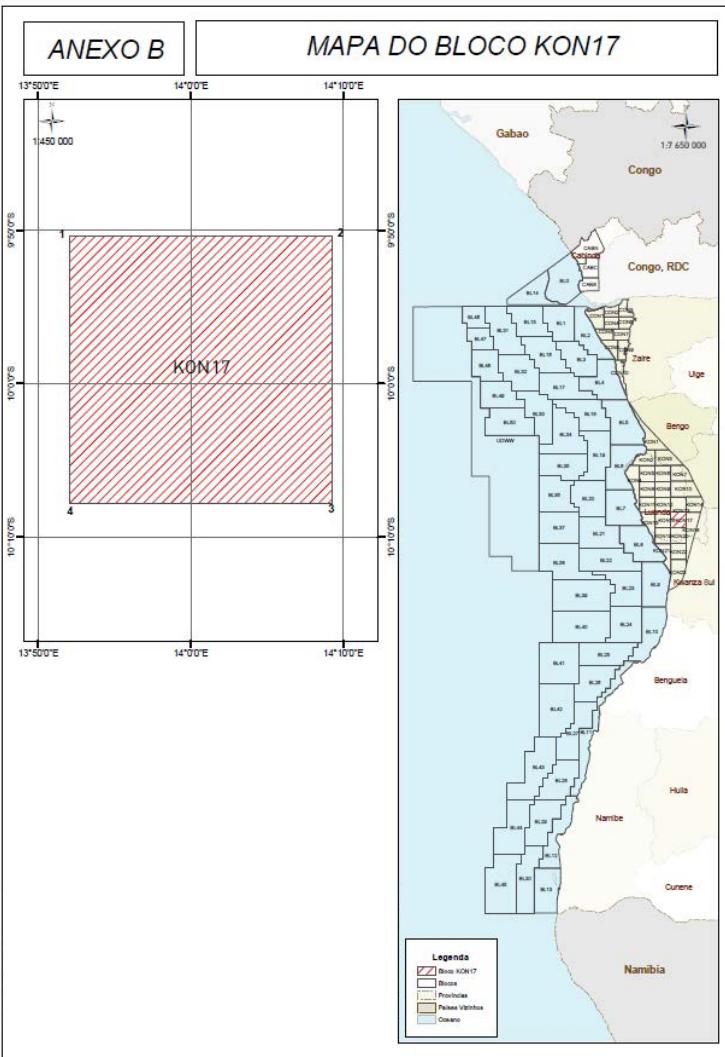


### Post-Salt Lead-2:

- **Source rock:** Shales from the Binga Fm.
- **Reservoir:** Oolitic carbonates from Binga Fm.
- **Seal:** Salt facies from the Tuenza Fm. or shales of the Quissonde Fm.
- **Trap:** Mixed (structural and stratigraphic)



## REGIONAL GEOSEISMIC MODEL OF BLOCK KON 17



### Pre-Salt

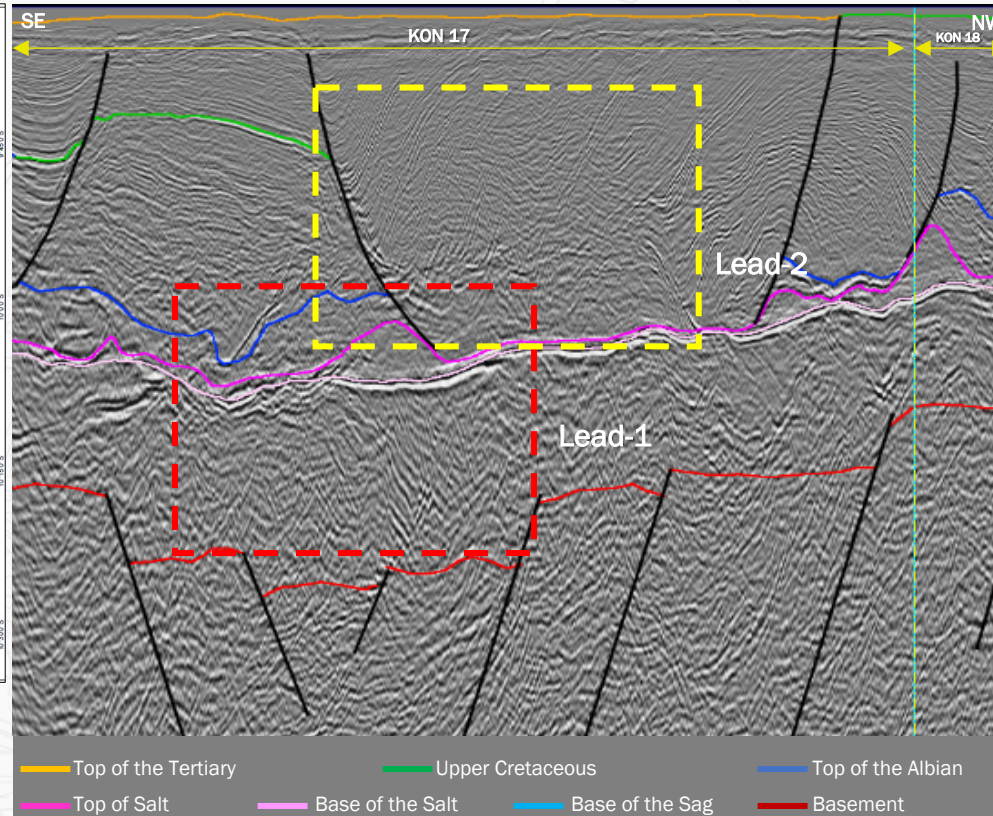
- Highly faulted basement with horsts and grabens;
- Sag occurs locally;
- Evaporitic sequence (Massive Salt Fm).

### Post-Salt

- Thick Albian with normal faults and antiformal structures;
- Thick Tertiary with post-depositional extensional faults and occurrence of one trough.

## PROSPECTIVITY OF BLOCK KON 17

Seismic Line no. GKC-2010-SKB\_230



### Pre-Salt Lead-1:

- **Source rock:** Shales from Cuvo Fm.
- **Reservoir:** Sandstones from the Chela equivalent Fm. or microbial carbonates of the Gray Cuvo Fm.
- **Seal:** Evaporites from the Massive Salt Fm.
- **Trap:** Mixed (structural and stratigraphic)

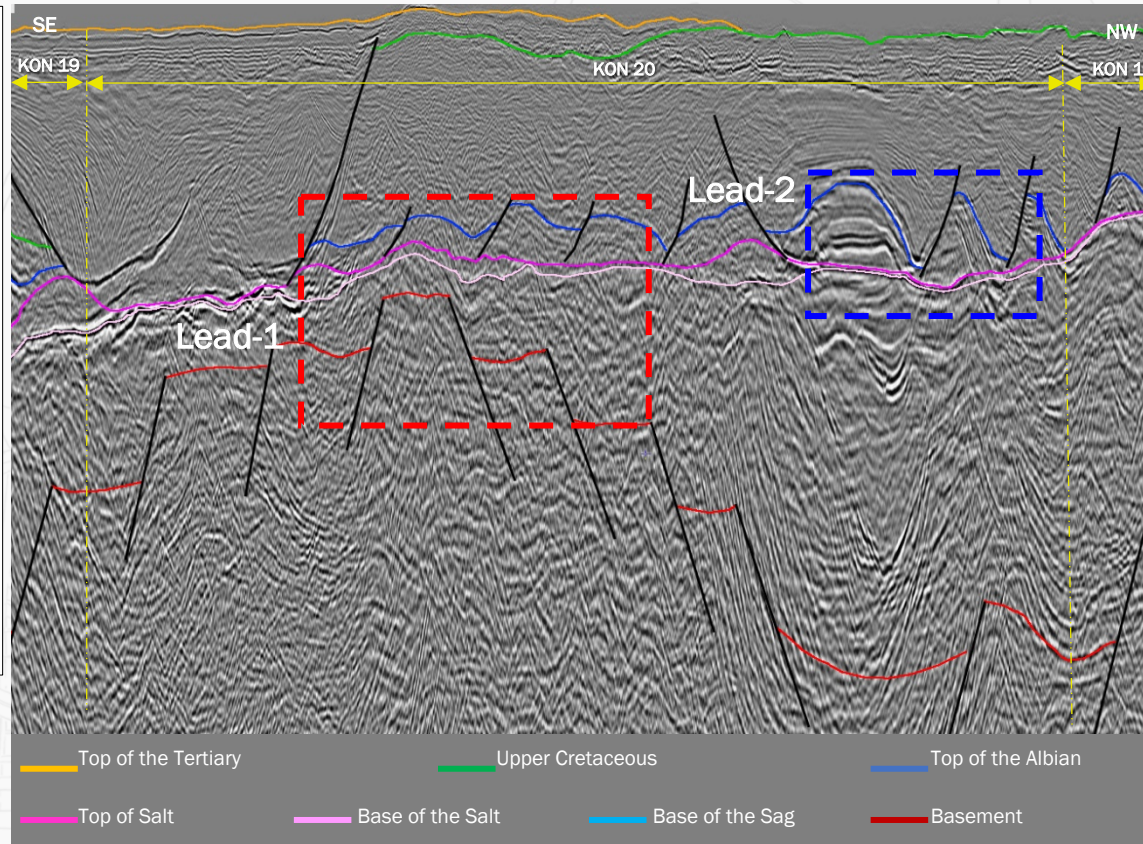
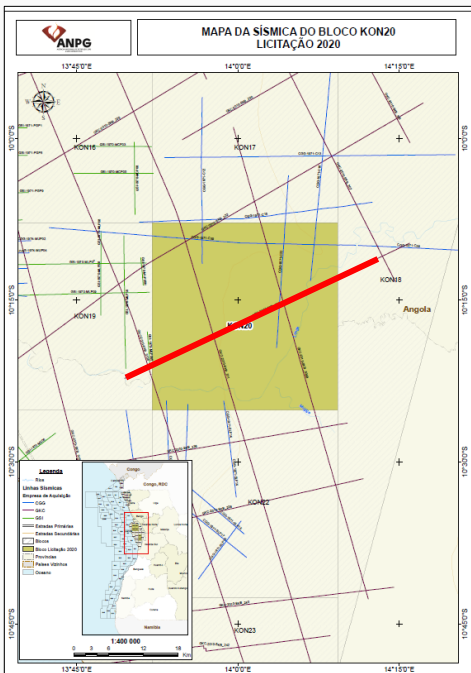
### Post-Salt Lead-2:

- **Source rock:** Shales from the Quifangondo, Cunga and/or Cuvo Fms.
- **Reservoir:** Sandstones channels of the Quifangondo Fm.
- **Seal:** Intraformational shales from the Quifangondo Fm.
- **Trap:** Mixed (structural and stratigraphic)



## PROSPECTIVITY OF BLOCK KON 20

Seismic Line no. GKC-2010-SKB\_234



### Pre-Salt Lead-1:

- **Source rock:** Shales from Red Cuvo Fm.
- **Reservoir:** Coquinas carbonates from the Red Cuvo Fm.
- **Seal:** Intraformational shales and/or evaporites of the Massive Salt Fm.
- **Trap:** Mixed (structural and stratigraphic)

### Post-Salt Lead-2:

- **Source rock:** Shales from the Binga and/or Cuvo Fms.
- **Reservoir:** Oolitic carbonates of the Binga Fm.
- **Seal:** Shales from the Cabo Ledo Fm.
- **Trap:** Mixed (structural and stratigraphic)

# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## ACCESSIBILITY STUDIES AND DATA PACKAGES

# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020

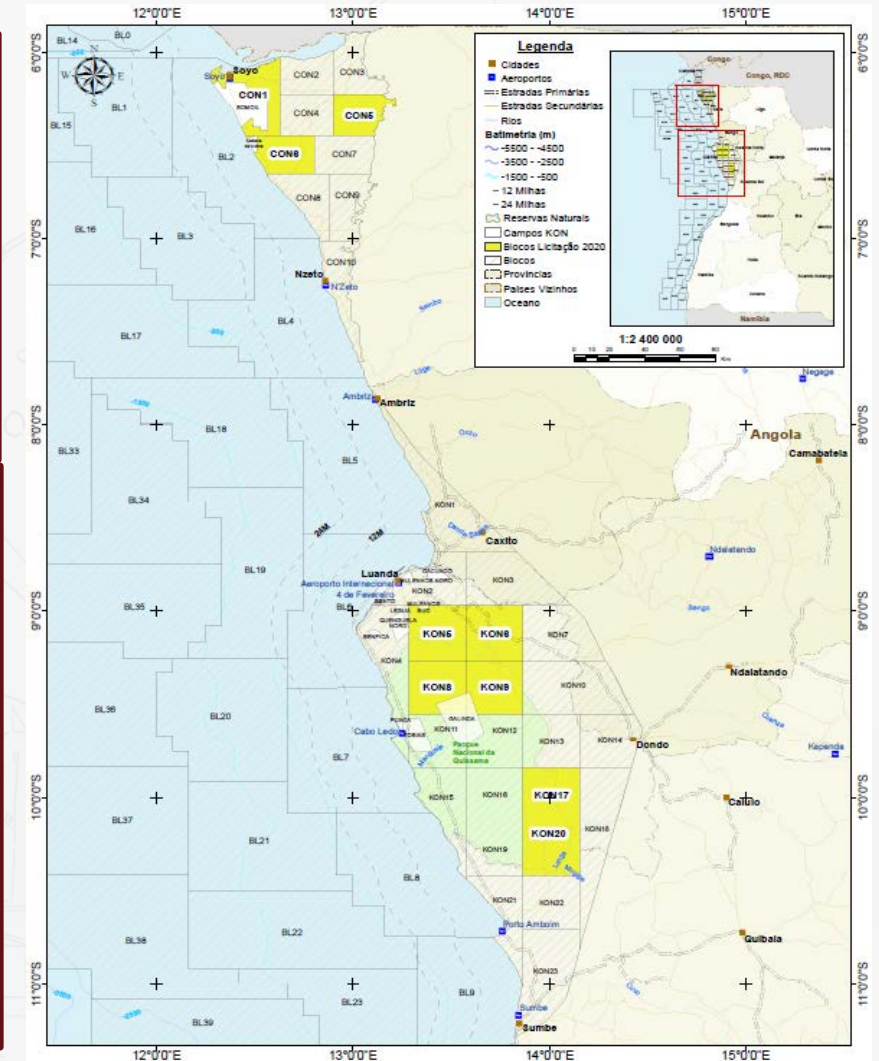


## ONSHORE CONGO & KWANZA BASINS

- ✧ The exploration of hydrocarbons in Angola had its starting date in 1910 when the first oil exploration license was granted, which covered an area of 114,000 km<sup>2</sup> of land in both the Congo and Kwanza basins.
- ✧ Since then, data has been acquired during well drilling on both onshore and offshore's sedimentary basins of Angola, with the following data being highlighted:
- ✧ **Geophysicists:** 2D, 3D, 4D seismic and magnetometry data.
- ✧ **Geological:** Drilling reports, geological, petrophysical, stratigraphic, tests, production, electrical diagrams (logs), samples (cores, cuttings), regional studies, among others.



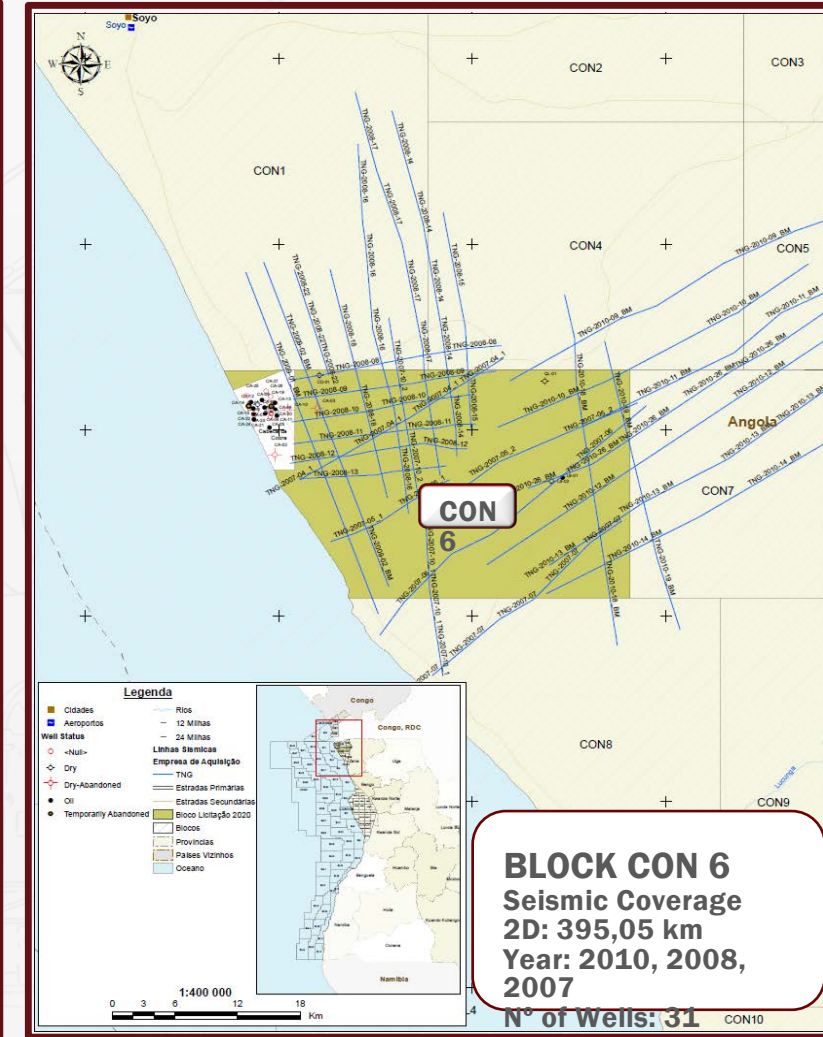
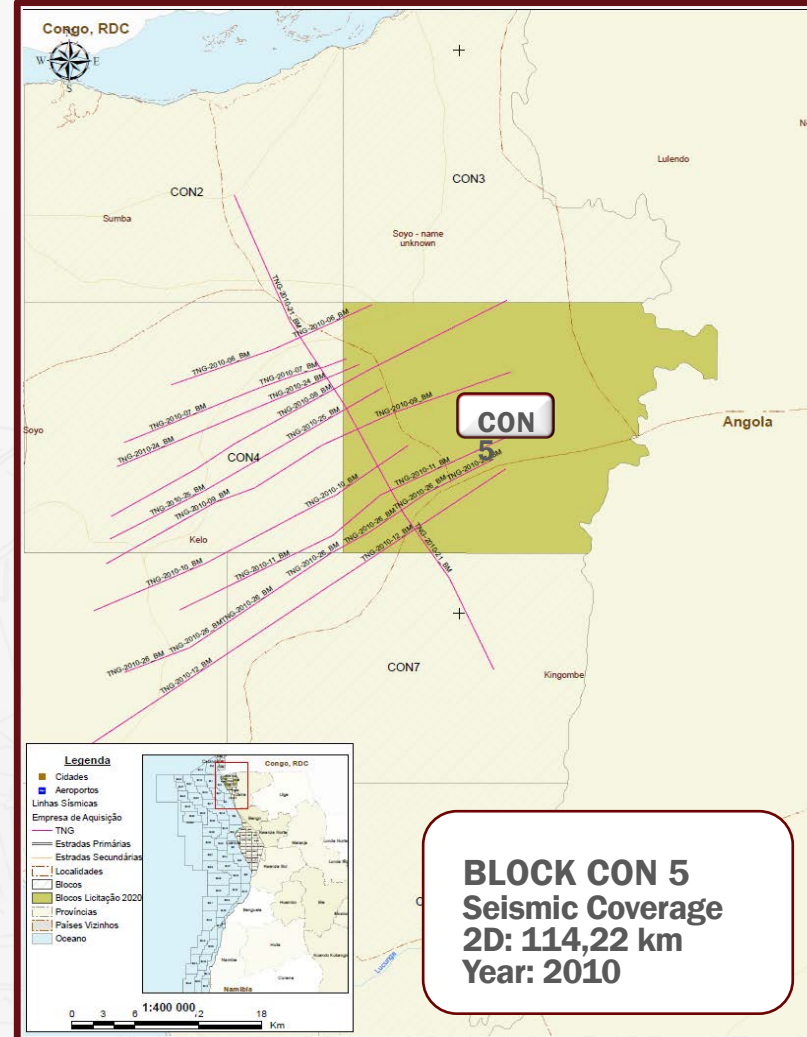
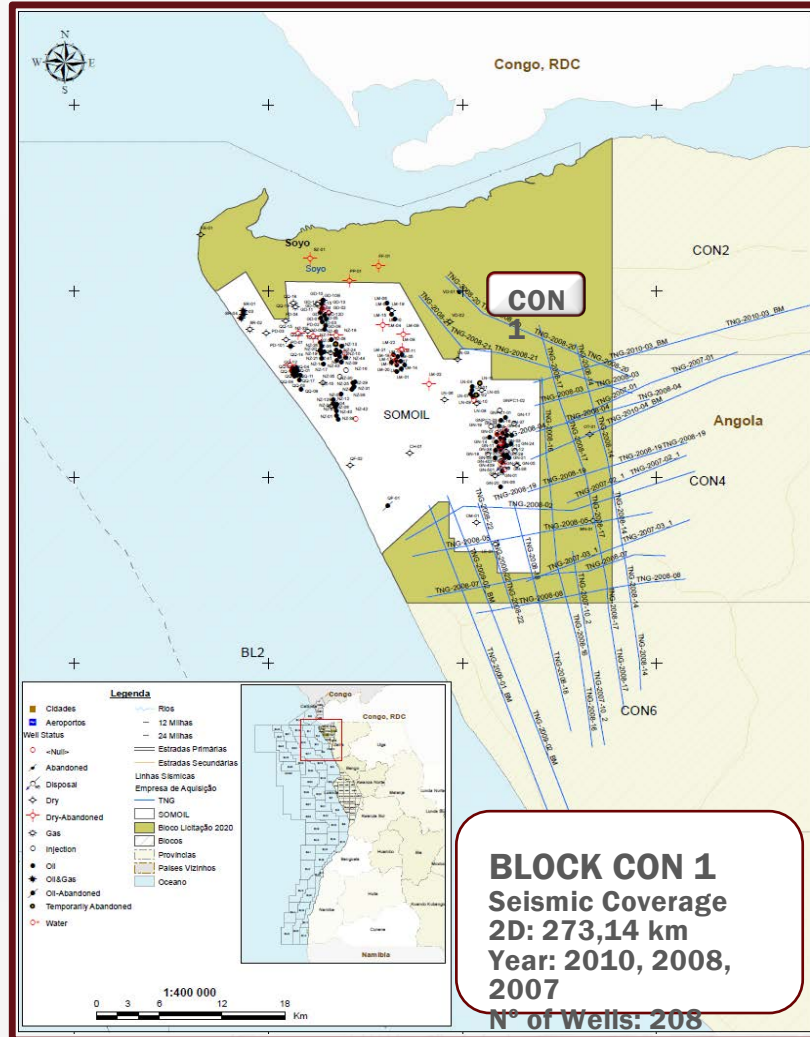
ONSHORE LOWER CONGO BASIN		ONSHORE KWANZA BASIN	
BLOCKS	AREA	BLOCKS	AREA
CON1	700,12 Km <sup>2</sup>	KON5	1,024,00 Km <sup>2</sup>
CON5	683,29 Km <sup>2</sup>	KON6	1,024,00 Km <sup>2</sup>
CON6	708,78 Km <sup>2</sup>	KON8	1,024,00 Km <sup>2</sup>
		KON9	1,024,00 Km <sup>2</sup>
		KON17	1.014,75 Km <sup>2</sup>
		KON20	1.009,67 Km <sup>2</sup>



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## LOWER CONGO – SEISMIC MAPS & WELLS



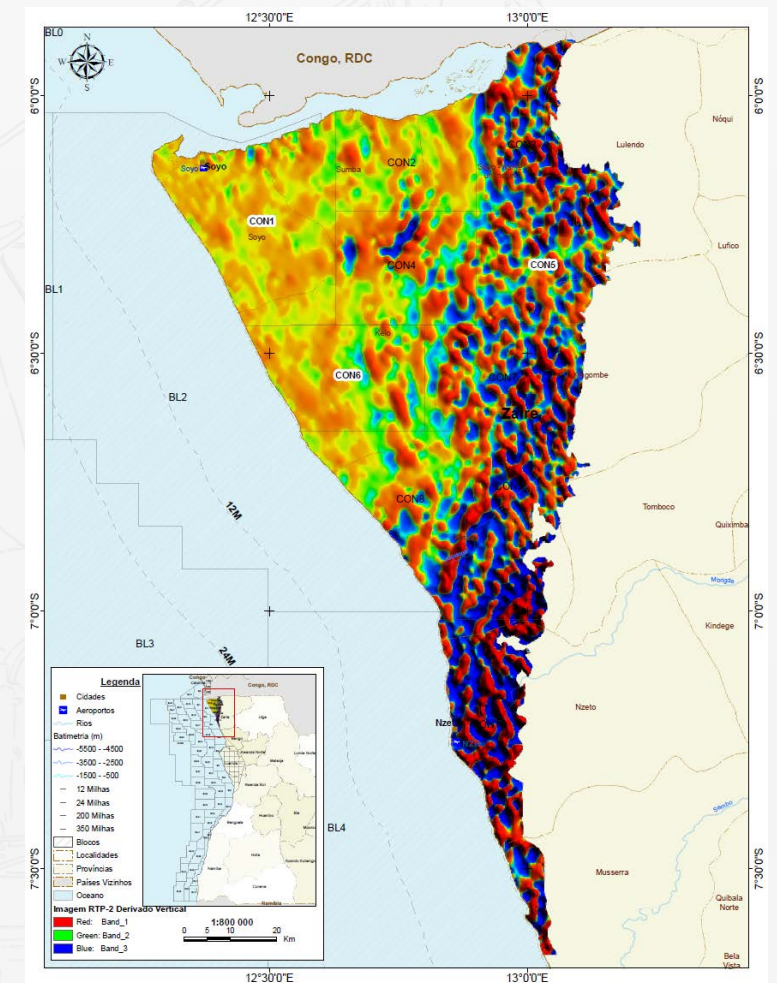
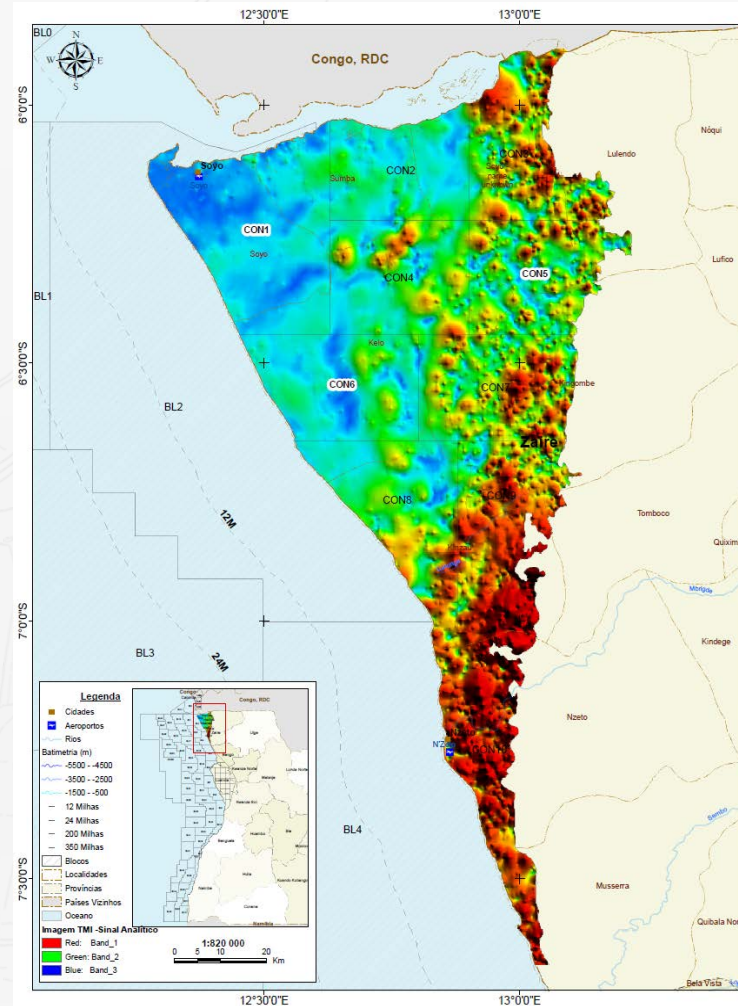
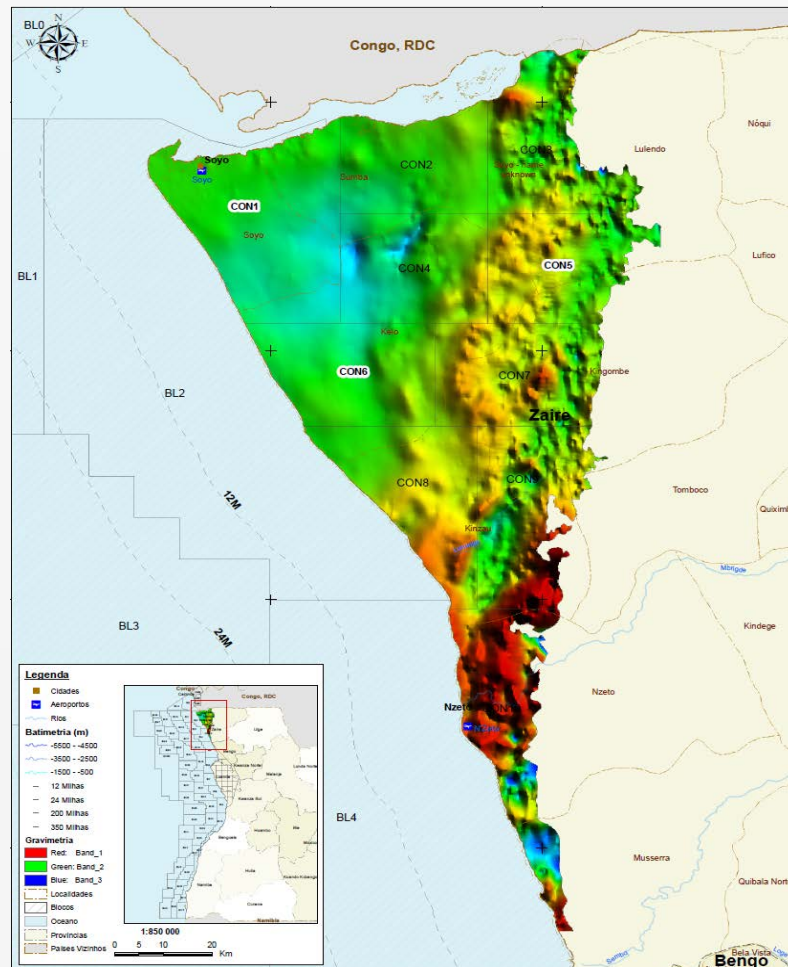
# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020

## MAGNETOMETRY MAPS OF THE ONSHORE CONGO BASIN ZONE

GENERAL MAP

REPROCESSED IMAGE MAP TMI ANALYTICAL

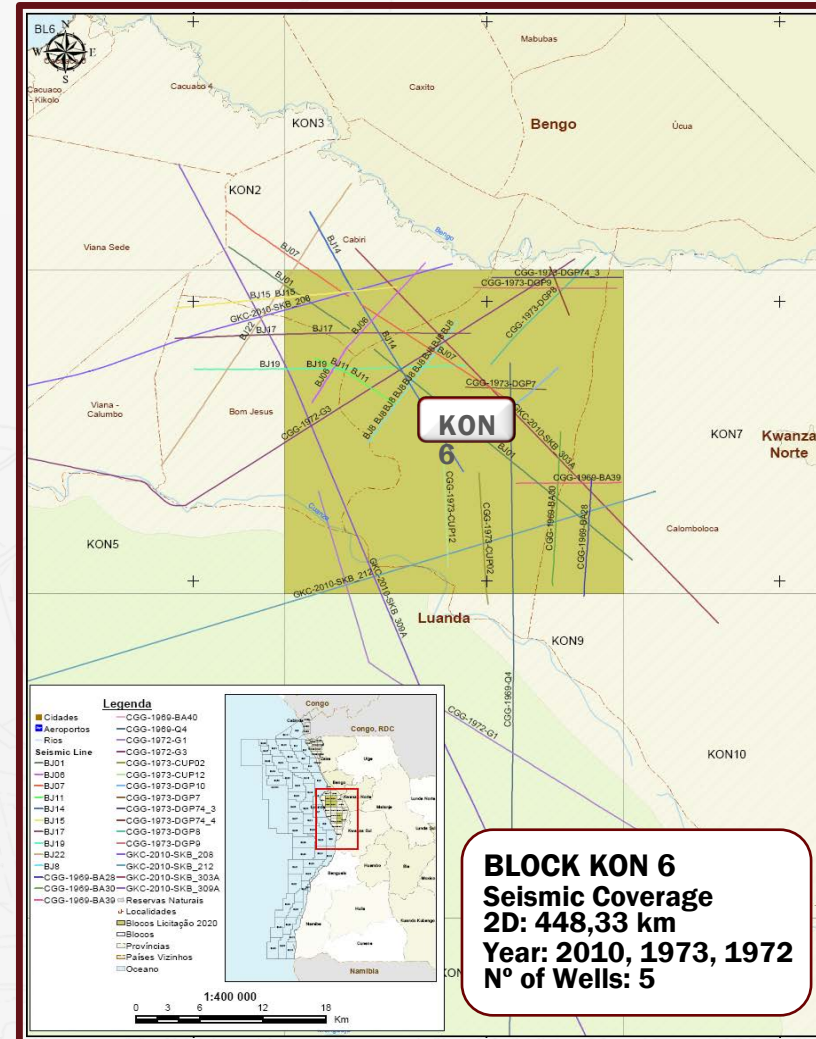
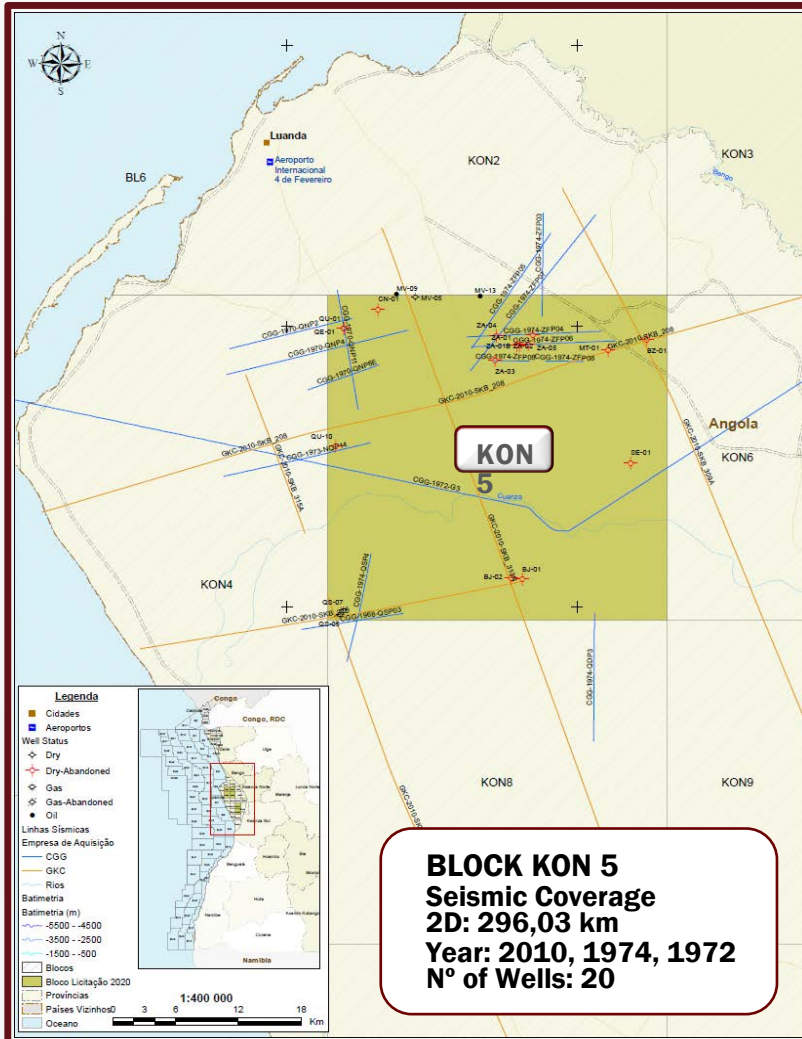
RTP - 2VD IMAGE MAP



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



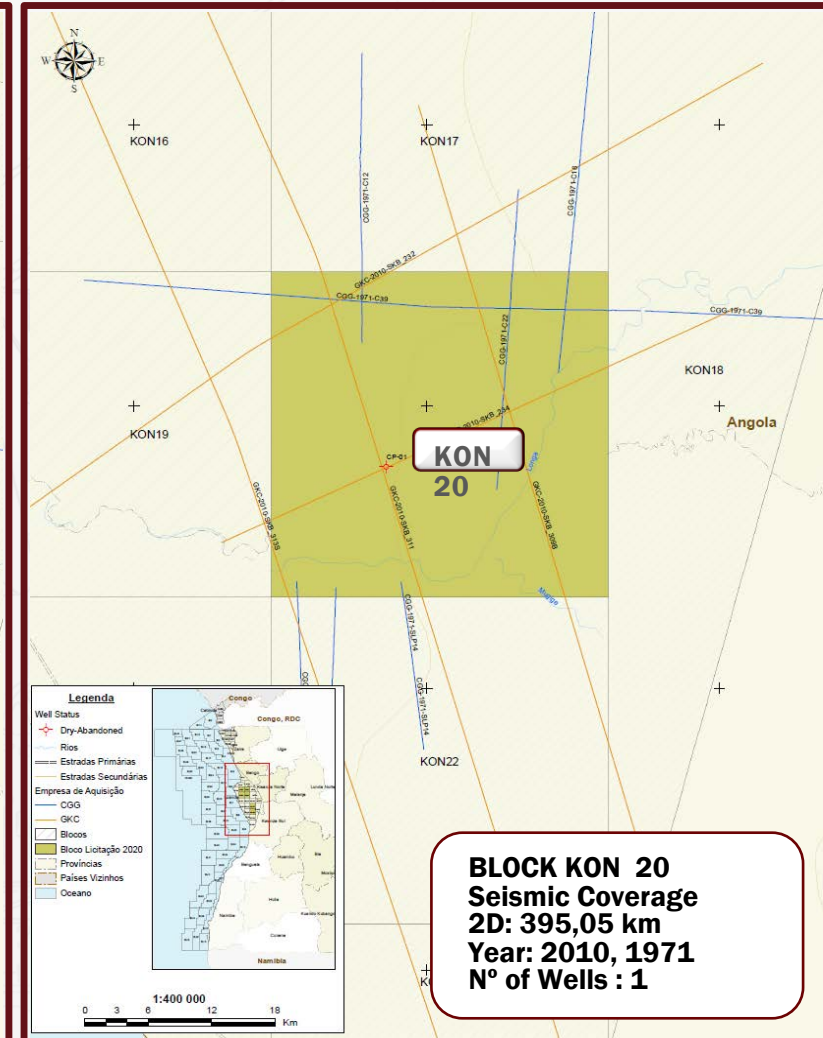
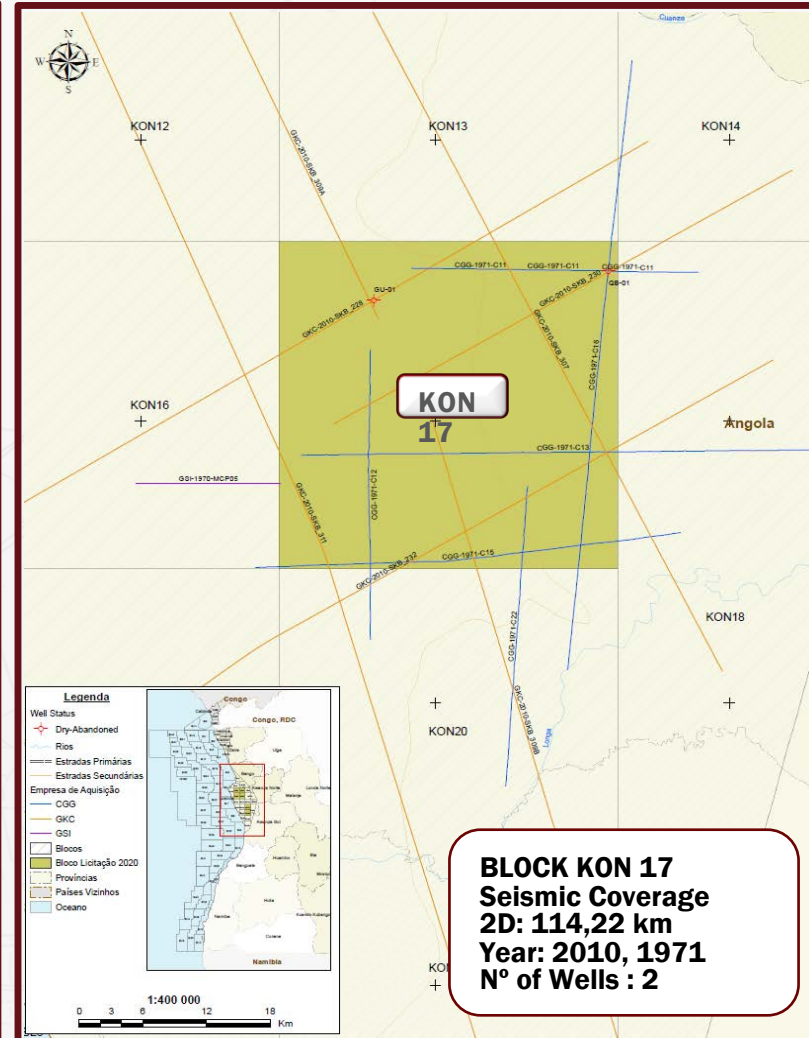
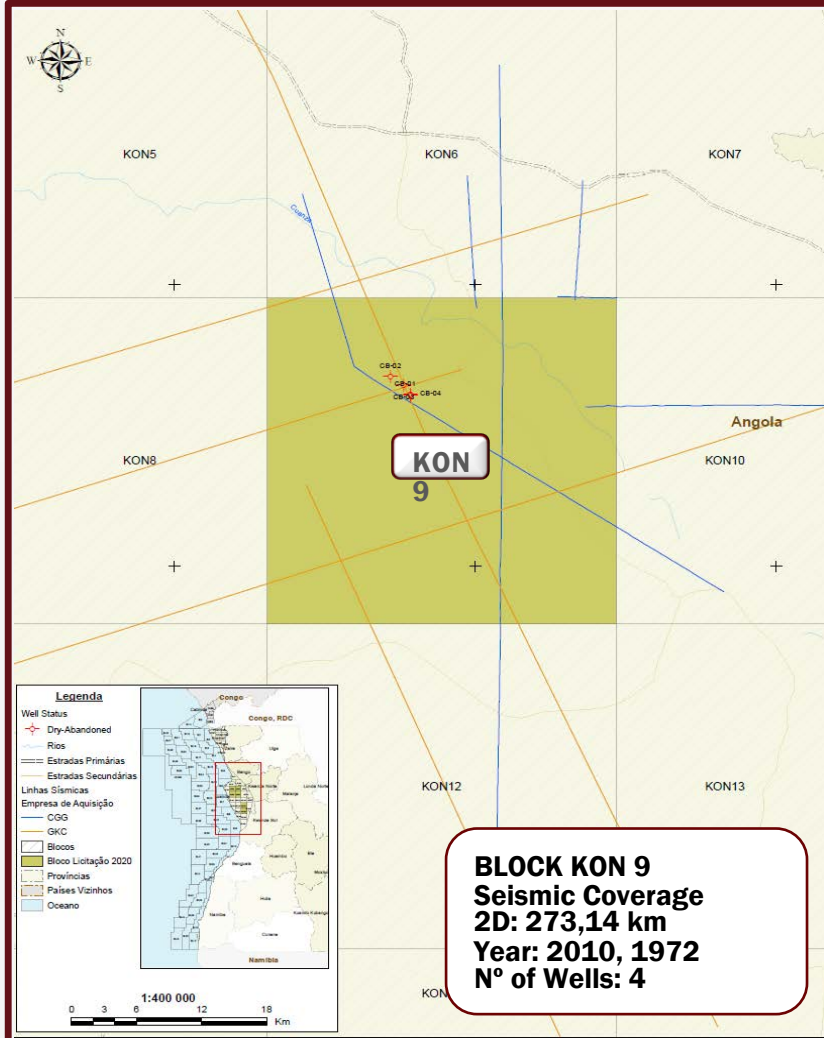
## KWANZA – SEISMIC MAPS & WELLS



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



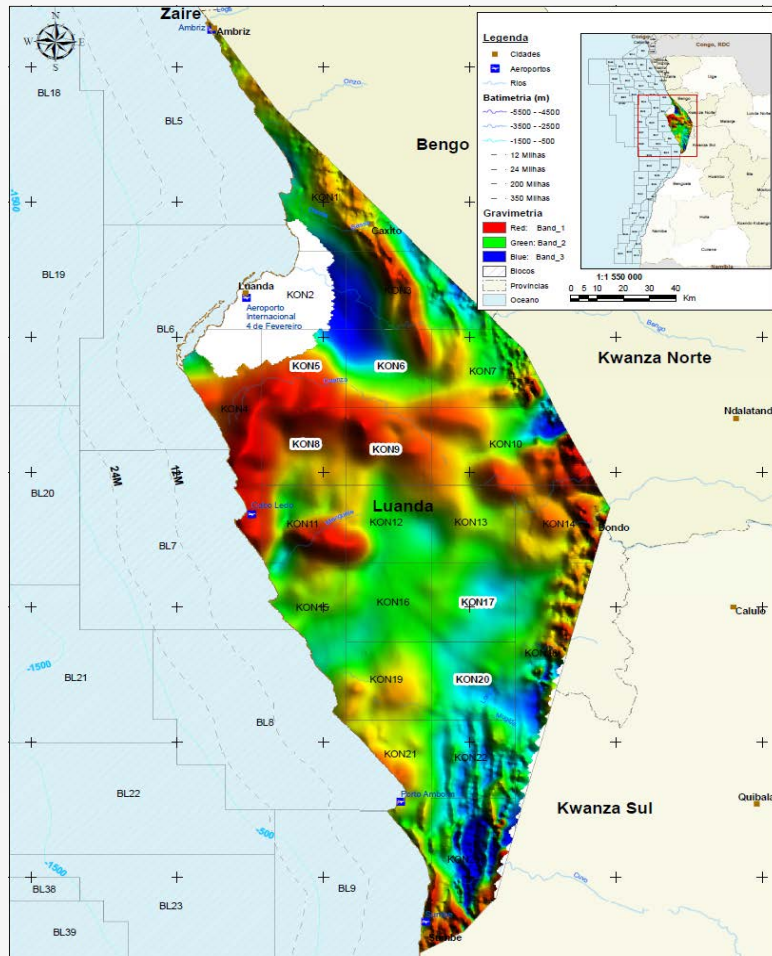
## KWANZA – SEISMIC MAPS & WELLS



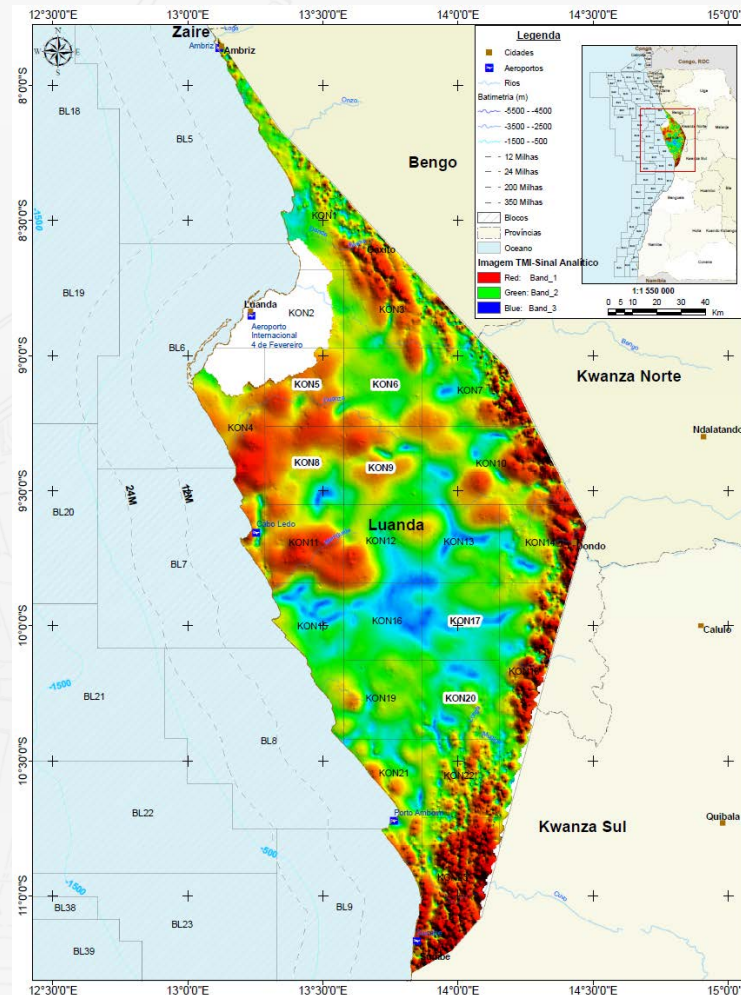
# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020

## MAGNETOMETRY MAPS OF THE ONSHORE CONGO BASIN ZONE

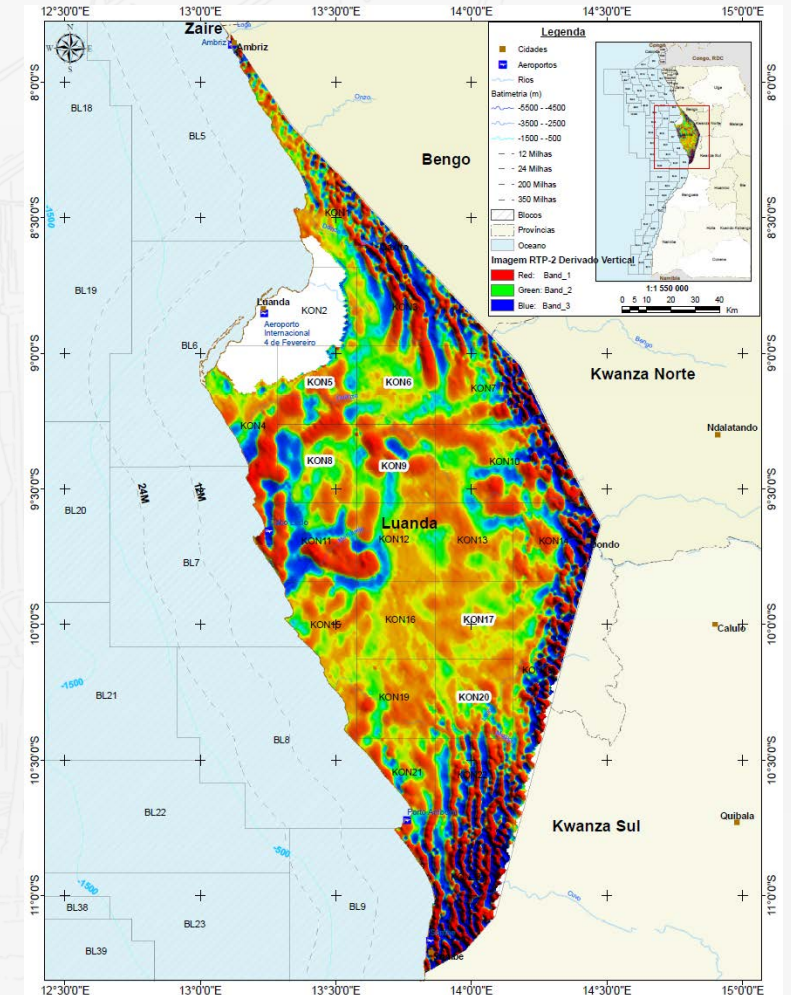
GENERAL MAP



REPROCESSED IMAGE MAP TMI ANALYTICAL



RTP - 2VD IMAGE MAP



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## GOALS

- Updated Satellite Imagery Acquisition
- Ground topographic acquisition
- Geographic DataBase creation



## ACESSIBILITY RELEVANCE

- Acess to land for research activities/purposes



## AVAILABLE FISICAL ATLAS



## Acessibility Studies Results

### 1. Data Base creation



Digital information available for consultation



Districts boundaries



Demographic Density



Roads



Hidrograph



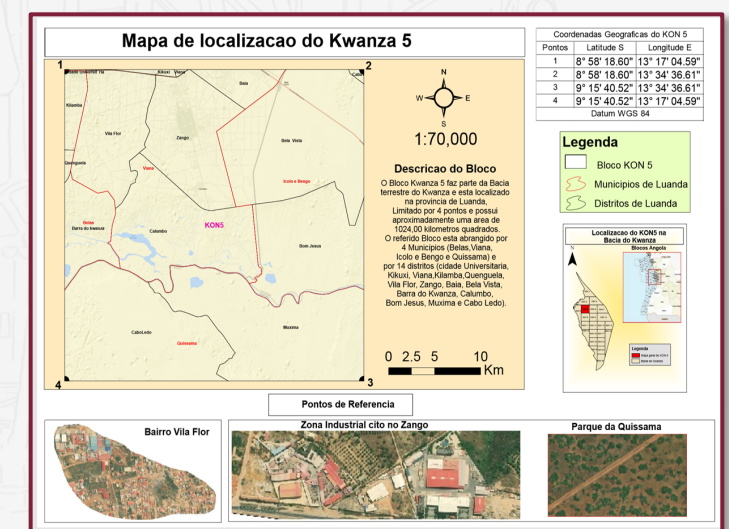
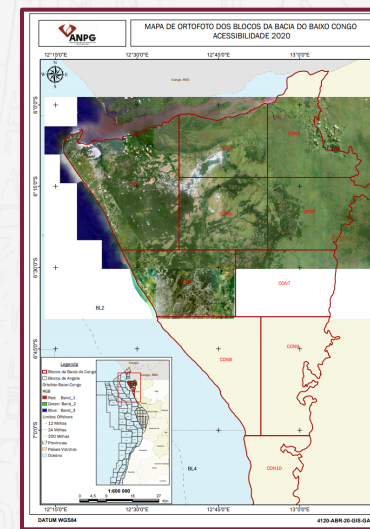
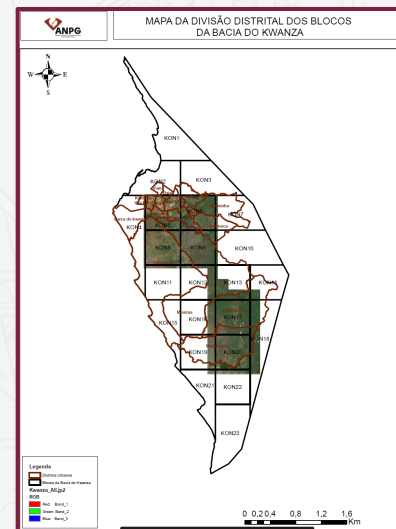
Natural Reserves



High Resolution Block Images

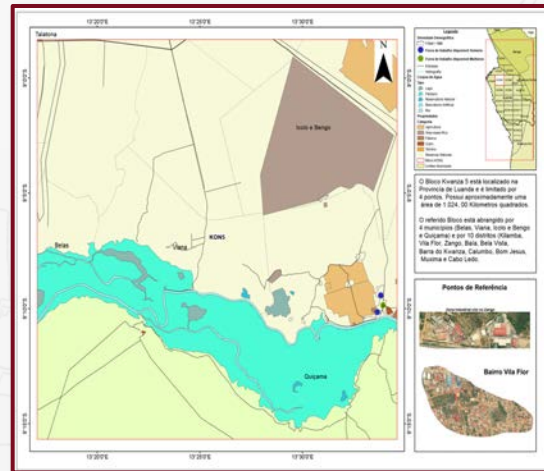
### 2. Atlas Content

- General maps of the administrative division of the Lower Congo and Kwanza Basin Blocks.

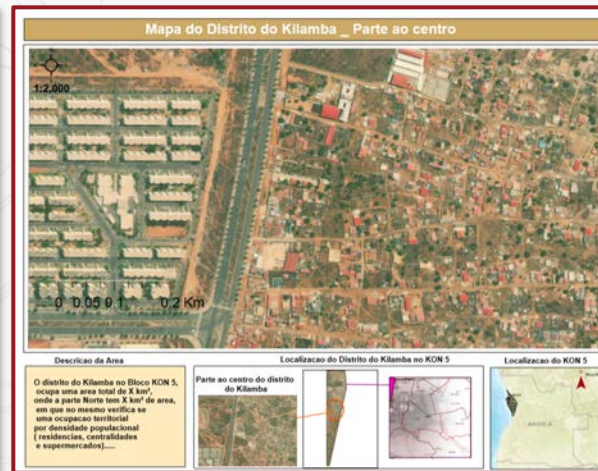


## ACCESSIBILITY STUDIES OF THE ONSHORE LOWER CONGO AND KWANZA BASINS

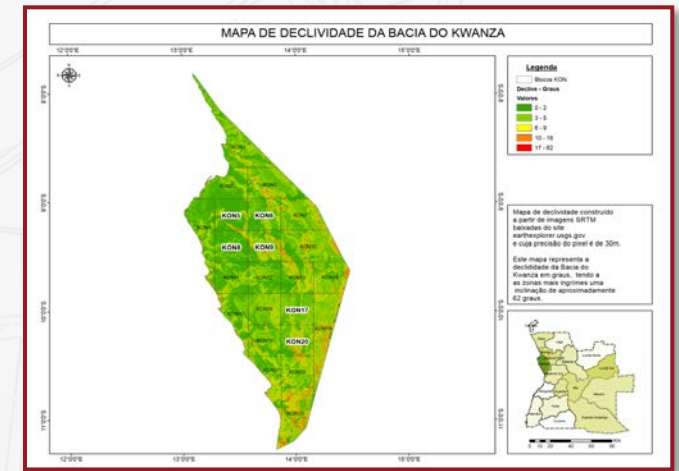
### ■ Blocks Occupancy Map



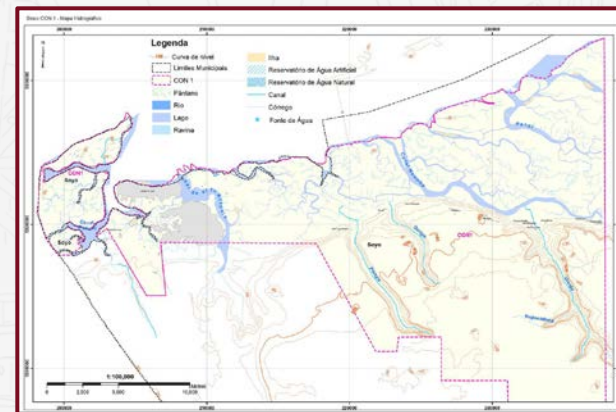
### ■ Kilamba District Map



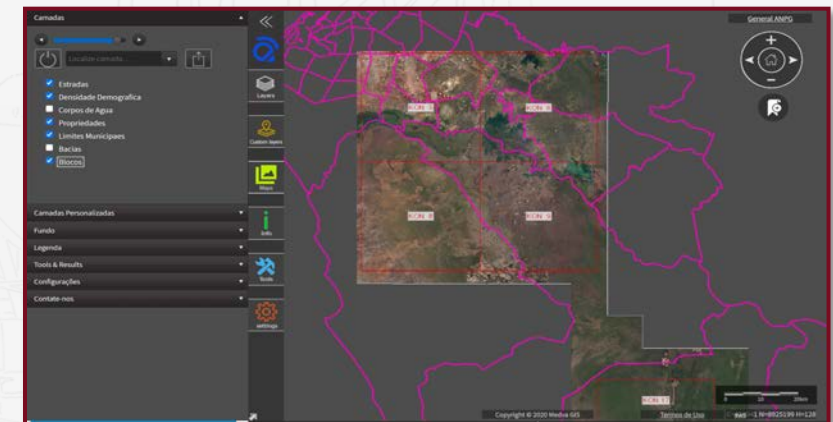
### ■ Slope Maps



### ■ Hydrographic Map



### 3. ANPG Data Portal (INSIGTH GIS)



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020

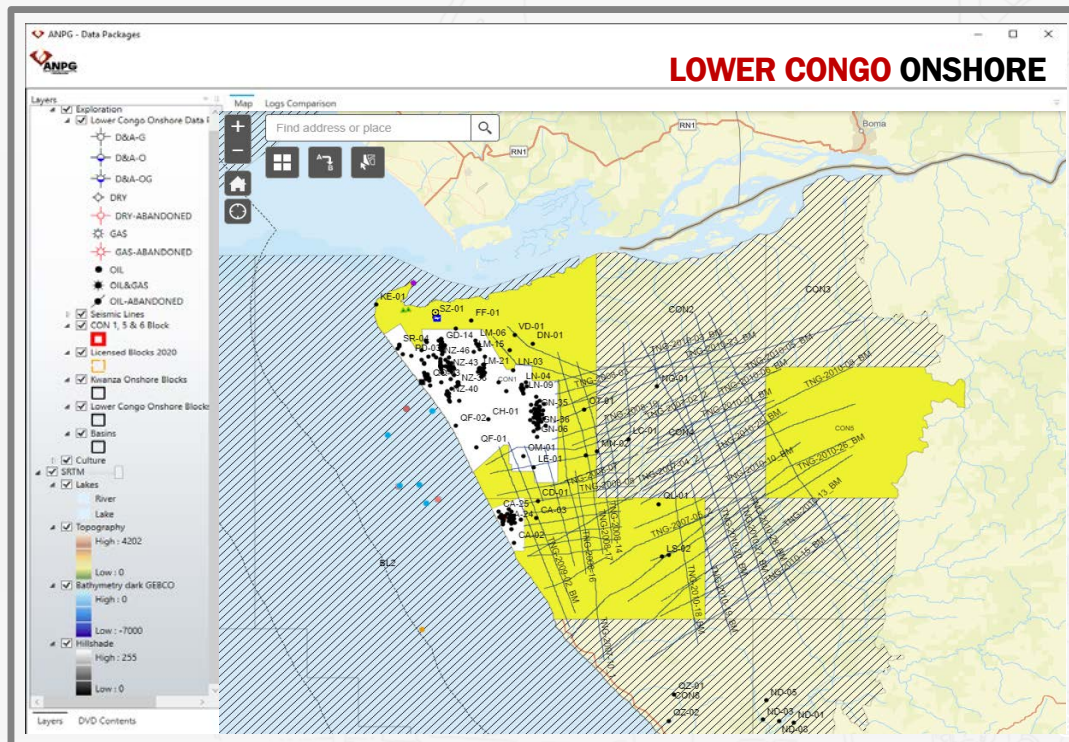


## INTERACTIVE DATA PACKAGES

For this years' bidding round, two data packages were created with E&P information from the following areas:

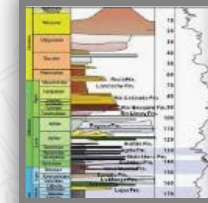
❖ **ONSHORE LOWER CONGO** - CON1, CON5 e CON6

❖ **ONSHORE KWANZA** - KON5, KON6, KON8, KON9, KON17 e KON20



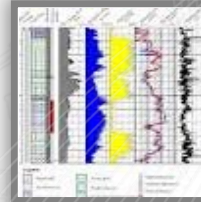
### MAPS

Concession Maps, Wells,  
Seismic, Oil Companies,  
Angola Basins



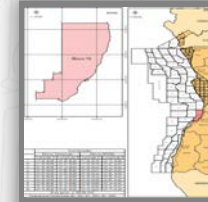
### GEOLOGICAL DATA

Regional Studies,  
Stratigraphic



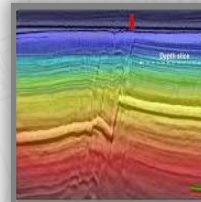
### WELL DATA

Final Reports  
Well Logs



### BLOCKS DESCRIPTION

Technical Brochures  
Prospectivity



### GEOPHYSICAL DATA

Content listing



### LEGAL INFORMATION

Main laws of the Petroleum  
sector in Angola



### ACCESSIBILITY

Maps with information on Geodetic Landmarks, Administrative  
Division, Population, Hydrographic and Road Network

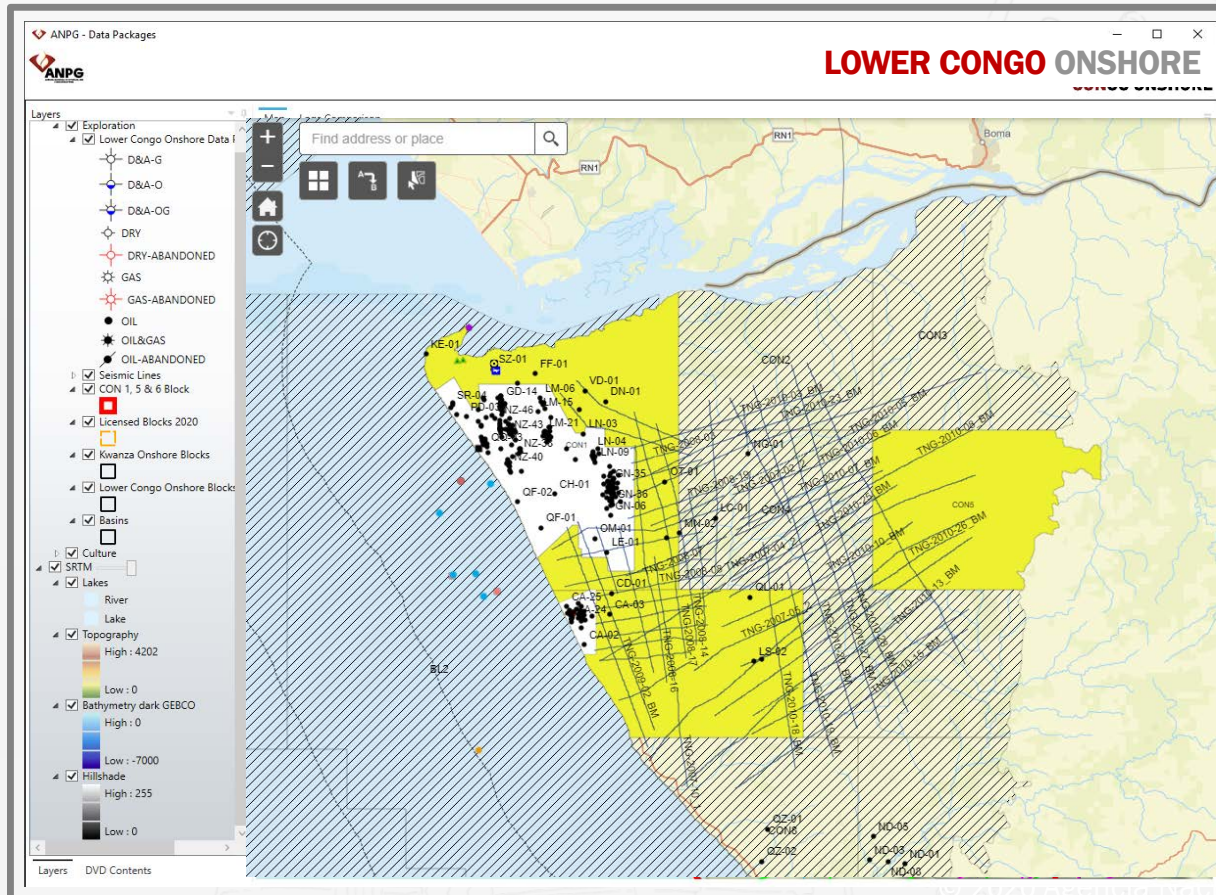
# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## PACKAGE OF THE ONSHORE CONGO BASIN

For the Congo onshore data package, technical E&P data is available for Blocks: **CON1, CON5 and CON6**

## AVAILABLE INFORMATION



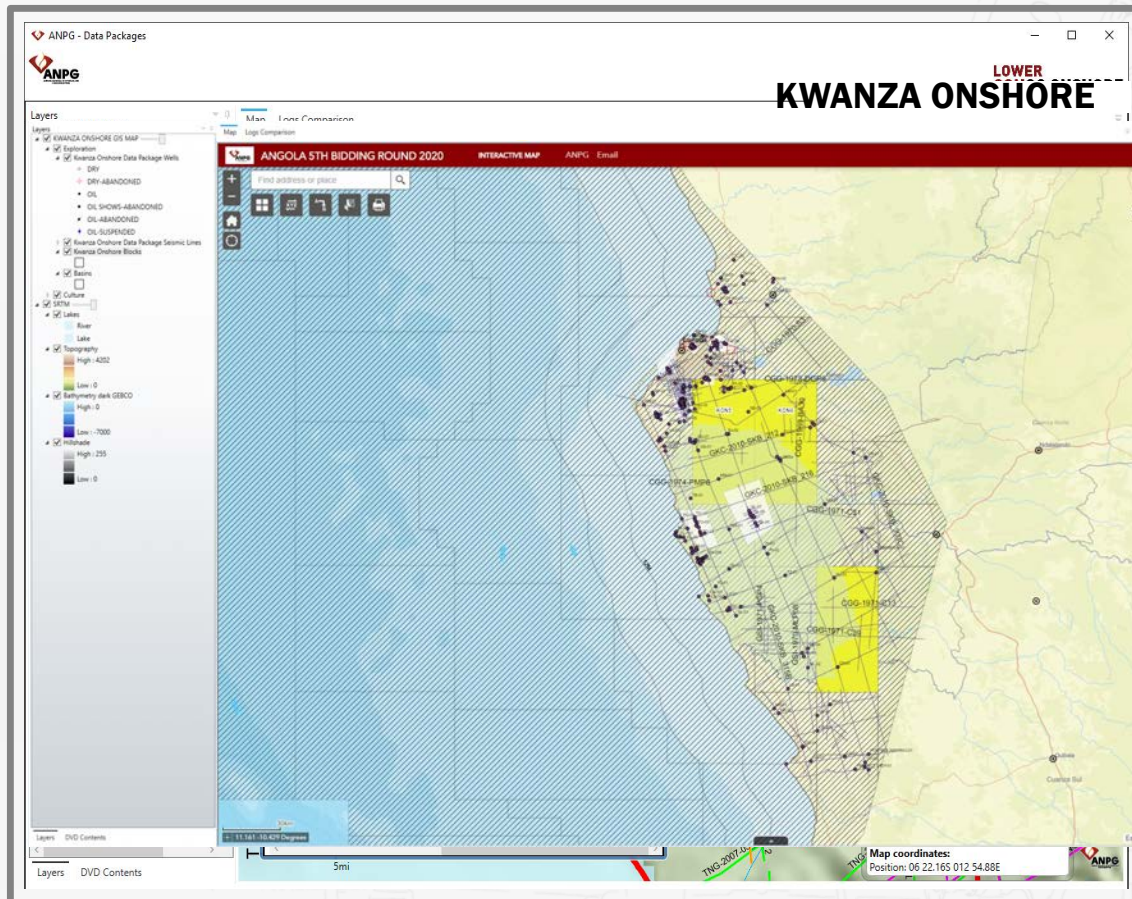
- ❖ N°. of Wells : 24
- ❖ Content listing;
- ❖ Block summary;
- ❖ Well database & Additional information (Headers, stratigraphy, well sampling, tests) of 57 wells, field production data;
- ❖ Well data: Geological reports, polling, stratigraphic, tests and logs;
- ❖ Regional studies: 14
- ❖ Diverse and interactive maps

# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## PACKAGE OF THE ONSHORE KWANZA BASIN

For the **Kwanza onshore** data package, technical E&P data is available for blocks: KON5, KON6, KON8, KON9, KON17 e KON20



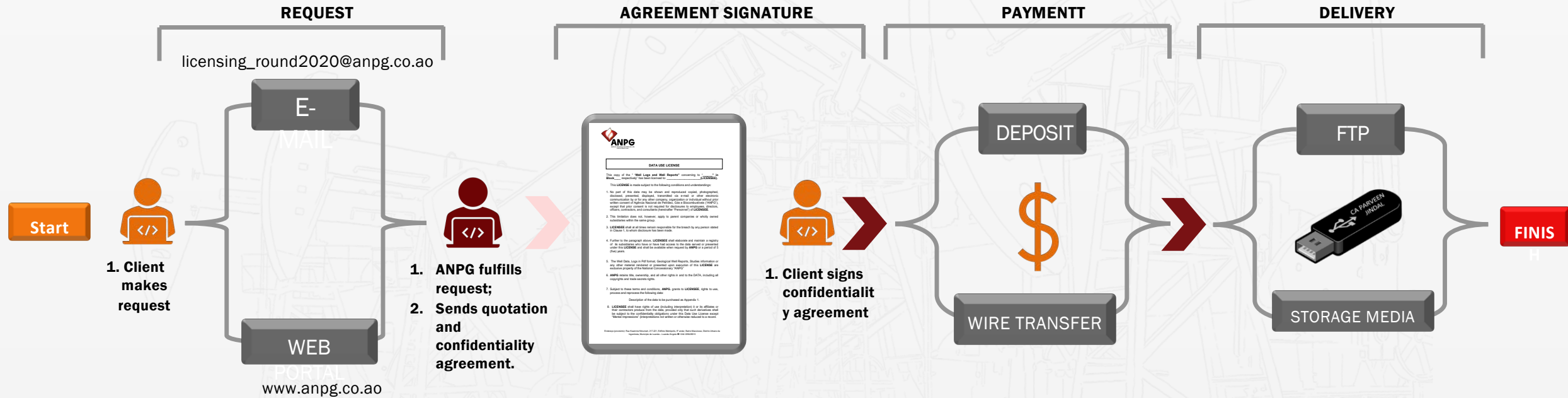
## AVAILABLE INFORMATION

- ❖ N°. of wells bidding on KON blocks : 36
- ❖ Additional Wells: 13
- ❖ Content listing;
- ❖ Block summary;
- ❖ Well database & Additional information (Headers, stratigraphy, well sampling, tests) of 57 wells, field production data;
- ❖ Well data: Geological reports, polling, stratigraphic, tests and logs;
- ❖ Regional studies :25
- ❖ Diverse and interactive maps

# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## STEP BY STEP PROCEDURE FOR DATA PACKAGE ACQUISITION



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## GEOPHYSICAL DATA – SALES CONTACTS



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+44 (0)7741310770

🌐 [www.iongeo.com](http://www.iongeo.com)



### DELTA DEVELOPMENT MANAGEMENT

### NOUMOUKE KABA

Vice President South Africa Region

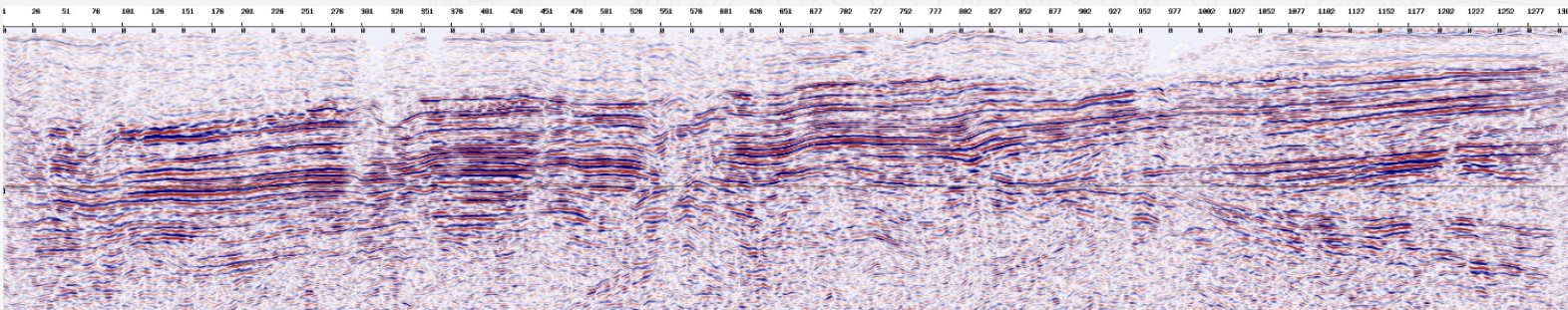
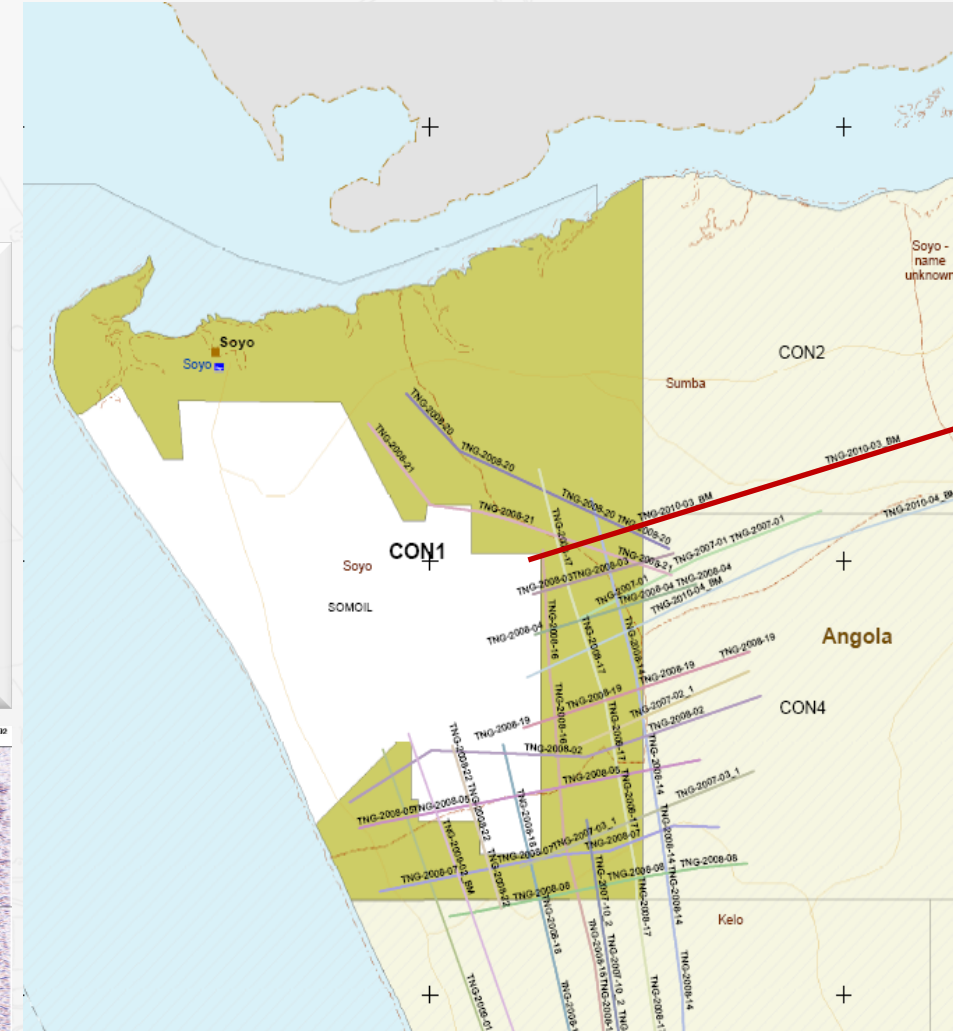
Rua Emilio M'Bindi, Bairro Alvalade, No. 69.  
Luanda,  
República de Angola

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🌐 [www.ddmsangoladata.com](http://www.ddmsangoladata.com)



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



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**LÚMEN N. P. SEBASTIÃO**  
Head of Data Management

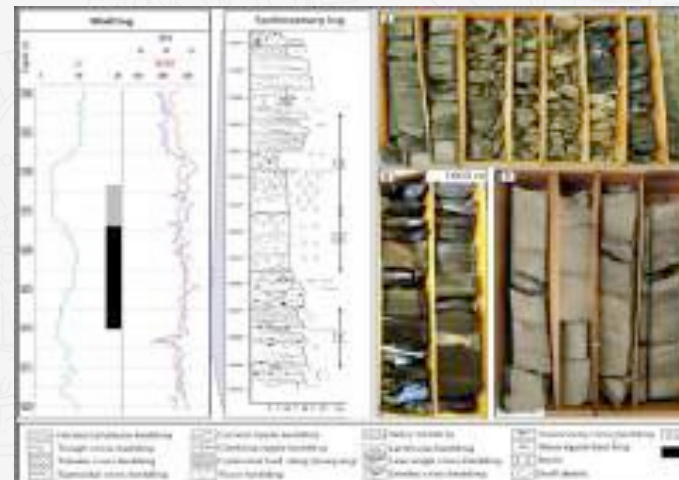
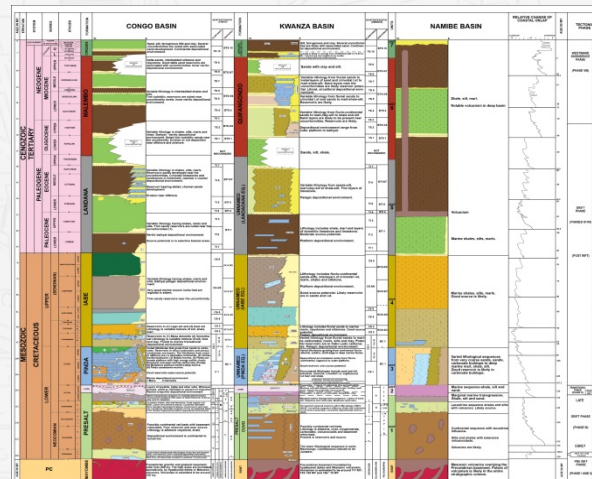
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licensing\_round2020@anpg.co.ao



# **ENVIRONMENTAL ASPECTS OF ONSHORE EXPLORATION**



## ONSHORE LOWER CONGO BASIN



Located in the  
municipality of  
Soyo, Zaire  
province



The area is comprised of mangroves, forest mosaics and other shrubs, with streams and tributaries that will flow into the Congo River

## ENVIRONMENTAL ASPECTS

### ONSHORE KWANZA BASIN



**Occupies an area of  
25.000 Km<sup>2</sup>.**

9.600 Km<sup>2</sup>  
corresponds to the  
extension of the  
Quiçama National Park.



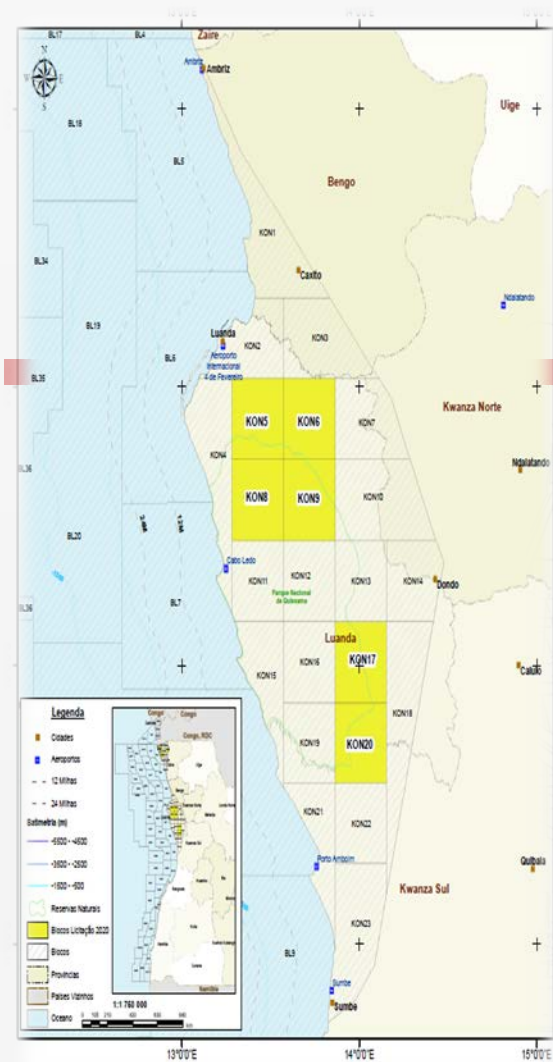
**Blocks KON 5, KON 6,  
KON 8, KON 9, KON 17 e  
KON 20 (in yellow)**

Some of the blocks are  
entirely or partially  
located inside the  
Quiçama National Park.



#### **Fauna e Flora**

The area is comprised of  
a forest-savanna mosaic  
and mangroves, with  
elephants, african forest  
buffaloes, roan antelope,  
etc.



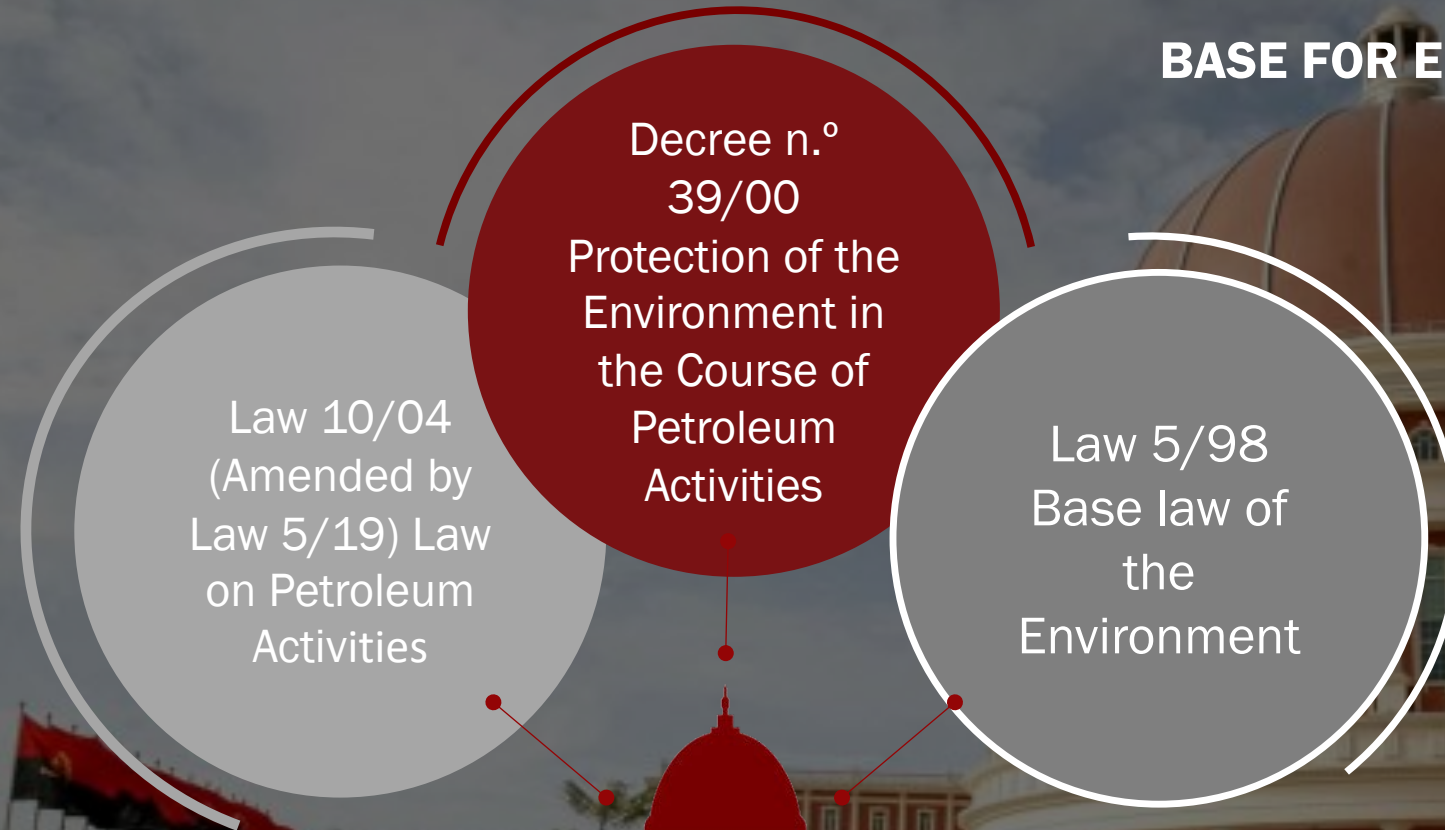
# LEGAL FRAMEWORK FOR ENVIRONMENTAL MANAGEMENT



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## BASE FOR ENVIRONMENTAL MANAGEMENT INSTRUMENTS IN ANGOLA



**CONSTITUTION OF THE REPUBLIC OF  
ANGOLA OF 2010**

## LEGAL FRAMEWORK FOR ENVIRONMENTAL MANAGEMENT



### **Decree about the Protection of the Environment in the Course of Petroleum Activities, n° 39/00 of 10 October**

- Environmental Impact Assessment and Environmental Licensing.
- Spill response Plan.
- Removal and Disposal of waste management plan.
- Operational and discharge management plan.
- Abandonment plan and installation site restoration.



**Decree on General Regulation for Environmental Impact Assessment and Environmental Licensing Procedure, n° 117/20 of 22 April**



**Executive Decree on Operational Discharge Management, n° 97/14 of 8 April**



**Executive Decree on Spill Occurrence Notification, n° 11/05 of 12 January**



**Presidential Decree on Waste Management, n° 190/12 of 13 July**



**Presidential Decree on the Abandonment of Wells and Dismantling of Oil Installations, n° 91/18 of 10 April**



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



**The current legislation sets boundaries and offers guidelines for companies to achieve environmental protection objectives.**

**The strict compliance of it, allows companies to carry out their commercial activities for the benefit of stakeholders while protecting the environment.**



**VIABLE OPPORTUNITIES  
TO INSURE A FUTURE -  
LOGISTICS, REGIONAL  
DEVELOPMENTS AND  
LOCAL CONTENT  
PROMOTION**

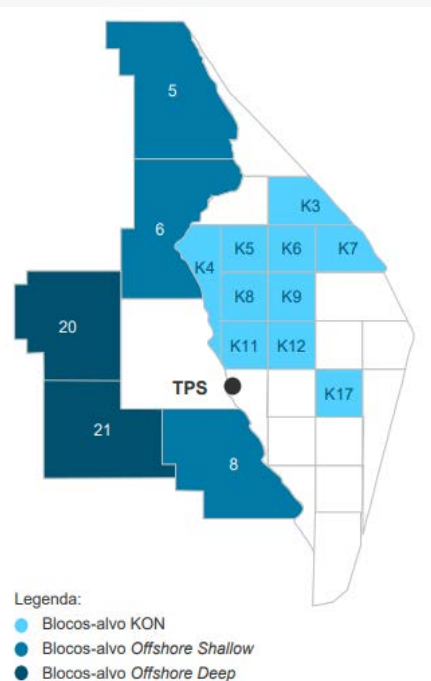
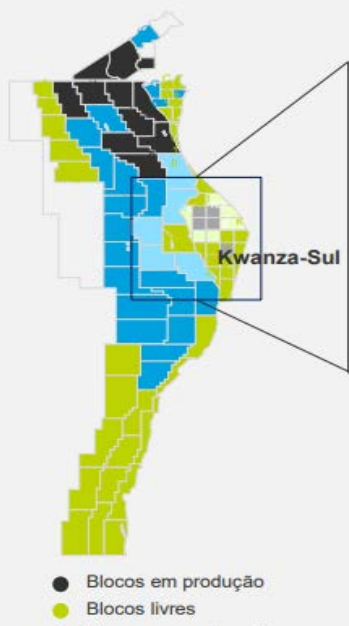


# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## LOGISTICS: SOUTH PETROLEUM TERMINAL - TPS

Mapa dos blocos



- The blocks of the terrestrial Kwanza (KON) are in an embryonic stage of development, with the start of production expected in 2025

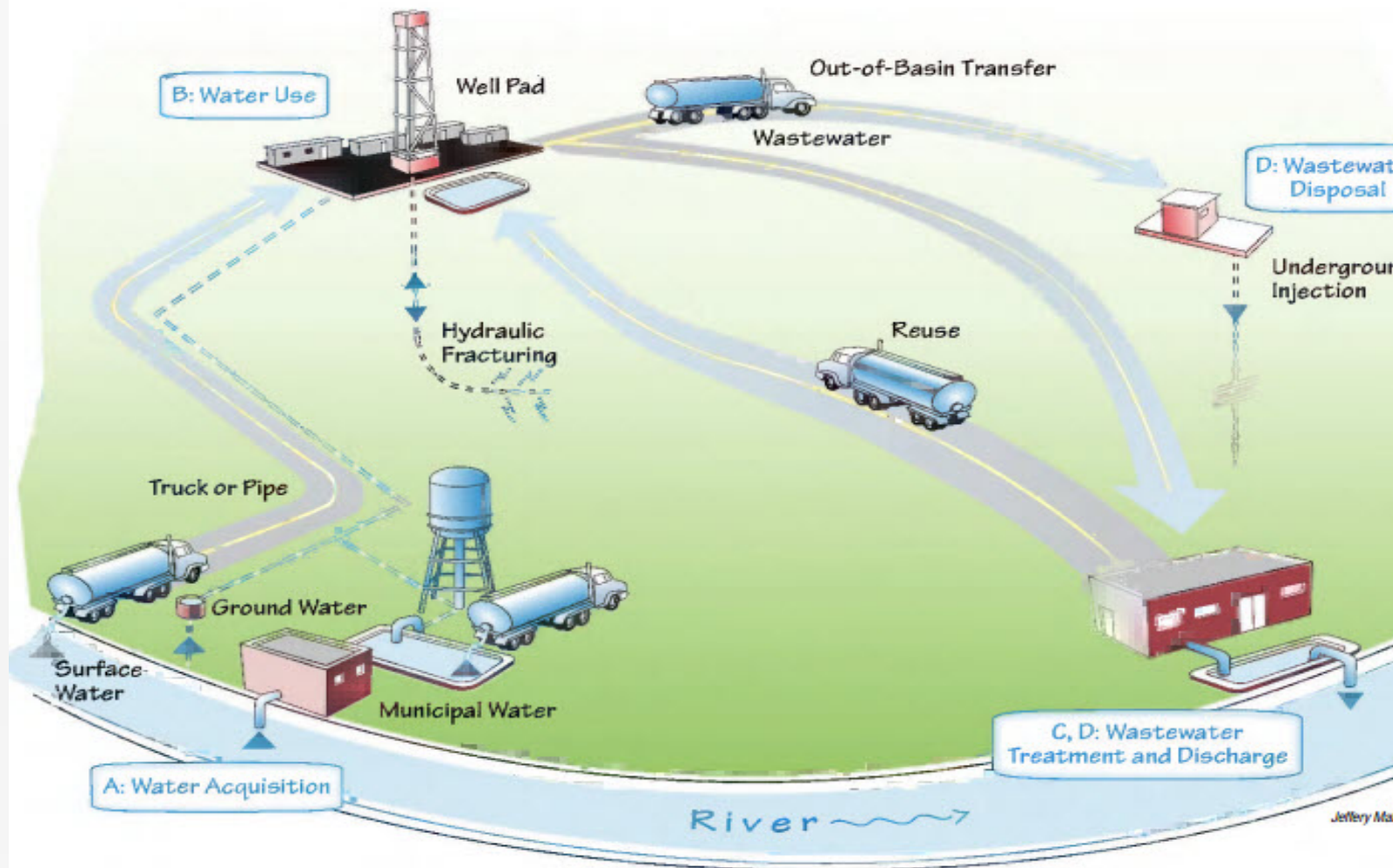
- In the first phase, the TPS should support 10 KON blocks: 3, 4, 5, 6, 7, 8, 9, 11, 12 and 17.



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020

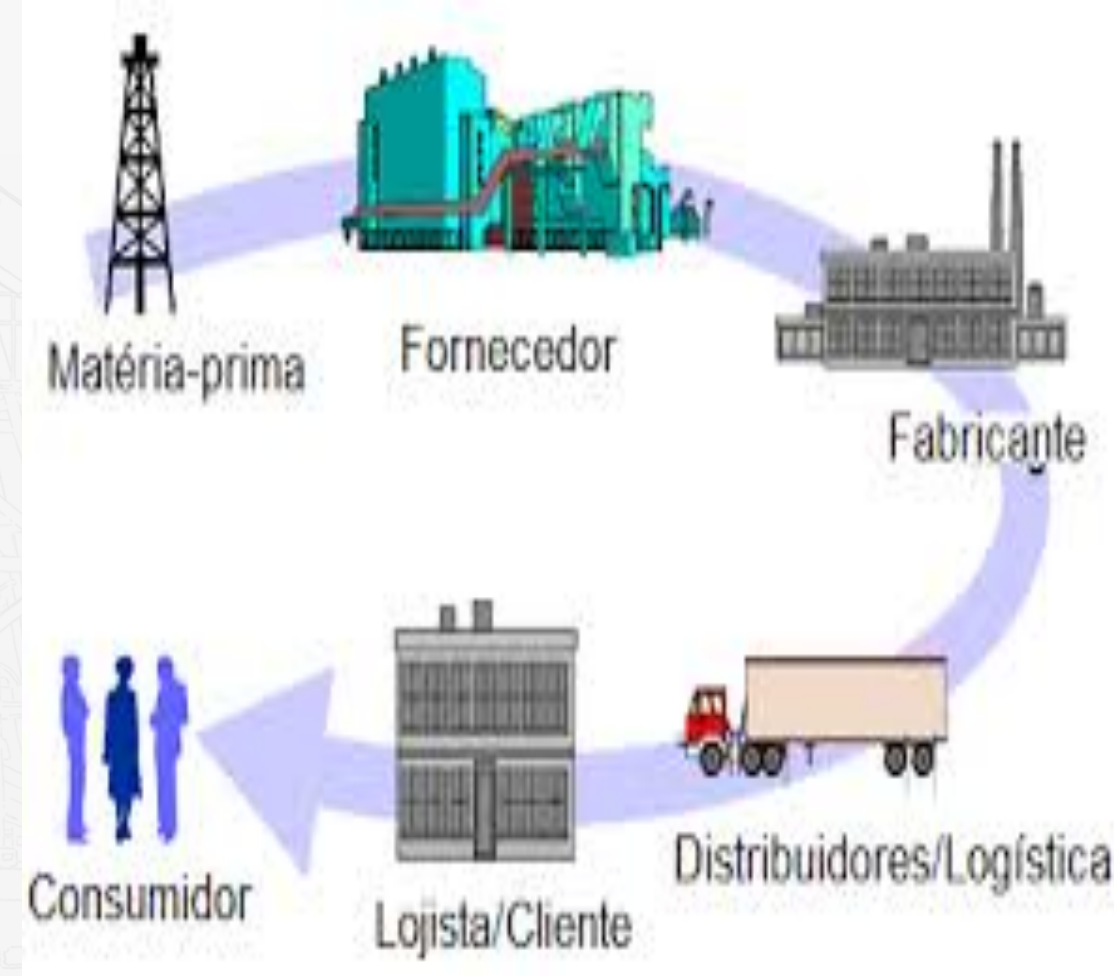


## INFRASTRUCTURES AND SERVICES




## OPPORTUNITIES TO A BRIGHT FUTURE - LOGISTICS, REGIONAL DEVELOPMENT AND PROMOTION OF LOCAL CONTENT

- ❖ Promote new way forward for new Private Angolan companies to participate in the research and production of oil in onshore areas;
- ❖ Improvement and development of terminals / logistics bases to support production operations or other existing facilities or industrial bases that can be used for this purpose;
- ❖ Creation of infrastructure for the treatment of industrial waste from common exploitation;
- ❖ Opportunities to invest in the transport, furniture, trade, industry, energy, petrochemicals, transformation sector and many others.



ONSHORE CONGO  
AND KWANZA BASINS  
LICENSING  
ROUND . 2020  
REPUBLIC OF ANGOLA



# **LEGAL FRAMEWORK APPLICABLE TO THE PETROLEUM SECTOR**

# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## **1. LAW N.º 10/04, OF NOVEMBER (PETROLEUM OPERATIONS LAW) AND DECREE N.º 1/09, DE 27 OF JANUARY 27 (APPROVES PETROLEUM OPERATIONS REGULATION)**

Establishes the access rules and execution of petroleum operations in the available surface and submerged areas of the national territory, the inland waters, the territorial sea, the exclusive economic zone and the continental platform.

### **GENERAL PRINCIPALS**

1. Public ownership of petroleum resources;
2. Exclusivity of the National Concessionaire (“CN”);
3. CN shall associate with national or foreign entities with proven technical and financial capacity, upon a Government authorization;
4. Mandatory risk for Partners;
5. Conditions for the execution of petroleum operations: prospecting license or a concession;
6. Association Mechanisms: Commercial Partnership, Consortium Contract and Production Sharing Agreement.

# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## 2. LAW 13/04, OF DECEMBER 24, (TAXATION OF PETROLEUM ACTIVITIES).

Establishes the tax regime applicable to the exploration, development, production, storage, sale, export, treatment and transportation of crude oil and natural gas.

### TAXATION REGIME

TAX	TAX INCOME	FEES
PETROLEUM INCOME TAX	Applicable to exploration, development, production, storage, sales, treatment and transportation activities	50% (CPP) and 65,75% (CSR)
SURFACE TAX	Applicable to the concession area or the DA's, if established in a contract executed with the CN	US 300.00/ Km2
CONTRIBUTION FOR ANGOLAN STAFF TRAINING	Applicable to local and foreign suppliers of goods and services to Oil Companies	Decree nº 17/09 de 26 de Junho (Fixa Contribuição)

## 3. DECREE N.º 120/08, OF DECEMBER 22 (ACCESS TO ONSHORE AREAS)

Establishes the rules for access to onshore areas and the acquisition of land rights in order to carry out petroleum operations, being the National Concessionaire and MIREMPET the entities that guarantee the materialization of said access, in terms of execution of procedures provided for in the applicable legislation.



### APPLICABLE LEGISLATION

Onshore oil exploration and production shall be subject to compliance with the provisions set out in the following legislation:

- **Law n.º 9/04, of November 09** – Land Access Law (establishes the general bases of the legal regime of the lands integrated in the original property of the state);
- **Decree n.º 58/07 of July 13** - Approves the General Land Concession Regulation.



## 4. CONCESSION DECREE

Formal Government instrument through which the National Concessionaire is awarded with a specific oil concession.

### RELEVANT ASPECTS

Among other aspects, the Concession Decree defines:

1. Allocation of mining rights;
2. Definition and description of the concession area;
3. Duration of the concession and the different phases and periods;
4. Operator identification;
5. Approval of the Production Sharing Agreement (if the National Concessionaire intends to be associated with a third party).

## 5. LAW No. 11/04 OF NOVEMBER 12 (LAW ON THE APPLICABLE CUSTOMS REGIME IN THE PETROLEUM SECTOR)

Establishes the customs regime by which petroleum operations are governed in the areas under the jurisdiction of the Republic of Angola, which applies to CN, its associates and entities that execute petroleum operations on their behalf.

### GENERAL PRINCIPALS

1. Exemption from duties and service charges associated with the import and export of goods destined for oil operations;
2. Determines a list of goods exempt from taxation;
3. It allows the temporary import and export of the goods referred to in the exemption list, with no deposit required;
4. The use of these assets for purposes other than those foreseen and declared constitutes an offense punishable under the terms of the applicable legislation.



## 6. ANTI-CORRUPTION LEGISLATION

For the execution of petroleum operations, the CN and its Associates shall perceive the guidelines issued by the Angola Anticorruption legislation and the International Conventions, as per the following legislation:

- ☐ **Law No. 3/10, of March 29** (Law on Public Probity): Establishes the bases and the legal regime related to public morality and respect for public assets, by the public agent;
- ☐ **Law No. 5/20, January 27** (Law Against Money Laundering, Financing Terrorism and Proliferation of Weapons of Mass Destruction): establishes measures of a preventive and repressive nature to combat the money laundering, the financing of terrorism and proliferation of Weapons of Mass Destruction;
- ☐ **Principles described in the United Nations Convention against Corruption**, signed in Mérida on 31 October 2003 and which effective date was on 14 December 2005.

# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



Accelerated bidding process  
(Presidential Decree No. 86/18)

- Simplification and acceleration of the process to grant investor companies the status of CN associates, allowing more frequent promotion and licensing of concession areas, preserving the public interest.



Enlarged operator limits for contracts approval for the acquisition of goods and services (Presidential Decree No. 86/18)

- Prerogative of the operator to acquire goods and services up to US \$ 5,000,000.00 without National Concessionaire consent.



Specific legal and tax regime to natural gas (Presidential Legislative Decree No. 7/18)

- Allows for the efficient use of gas reserves, promotes economic diversification, encourages the exploration of natural gas and guarantees the necessary flexibility of commercial terms to ensure economic viability of gas projects.

# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## **Exploration within development areas (Presidential Legislative Decree No. 5/18)**

- Creation of a special regime that allows additional exploration of the concession areas during the production period, allowing new discoveries in areas that reveal prospects which can maximize production levels in Angola.



## **Rules and Procedures for Abandonment and Decommissioning (Presidential Decree No. 91/18)**

- Implementation of a specific regime for abandonment and decommissioning.
- The financing of the liabilities will be via guarantee accounts, ensuring that the abandonment and decommissioning processes are carried out in accordance with the best international practices



## **Development of Marginal Fields (Presidential Legislative Decree No. 6/18)**

- Tax incentives that create a positive impact on the economic viability of marginal discoveries.



## STABLE FLEXIBLE ADVANTAGE

The Angolan legal system presents a very robust and attractive mechanism for investment regarding to onshore oil exploration and production activities, since it establishes precise Rules to ensure access to land and the execution of petroleum operations. Angola is unequivocally one of the geographies that offers the best investment conditions, given the legal and contractual flexibility, associated with the legislative evolution registered over the last few years as well as the improvements adopted in the operational area, situation which makes the Oil and Gas industry more attractive in Angola, creating:

- ❑ GREATER DYNAMISM IN THE CONCESSION MANAGEMENT PROCESS;
- ❑ GREATER FLEXIBILITY IN THE AWARD OF CONTRACTS FOR THE ACQUISITION OF GOODS AND SERVICES IN THE SECTOR;
- ❑ GREATER CONTRACTUAL AND FISCAL FLEXIBILITY;
- ❑ GREATER CONTRACTUAL STABILITY;
- ❑ IMPROVEMENT OF PETROLEUM OPERATIONS;
- ❑ GREATER CONSISTENCY IN THE ABANDONMENT ACTIVITY.

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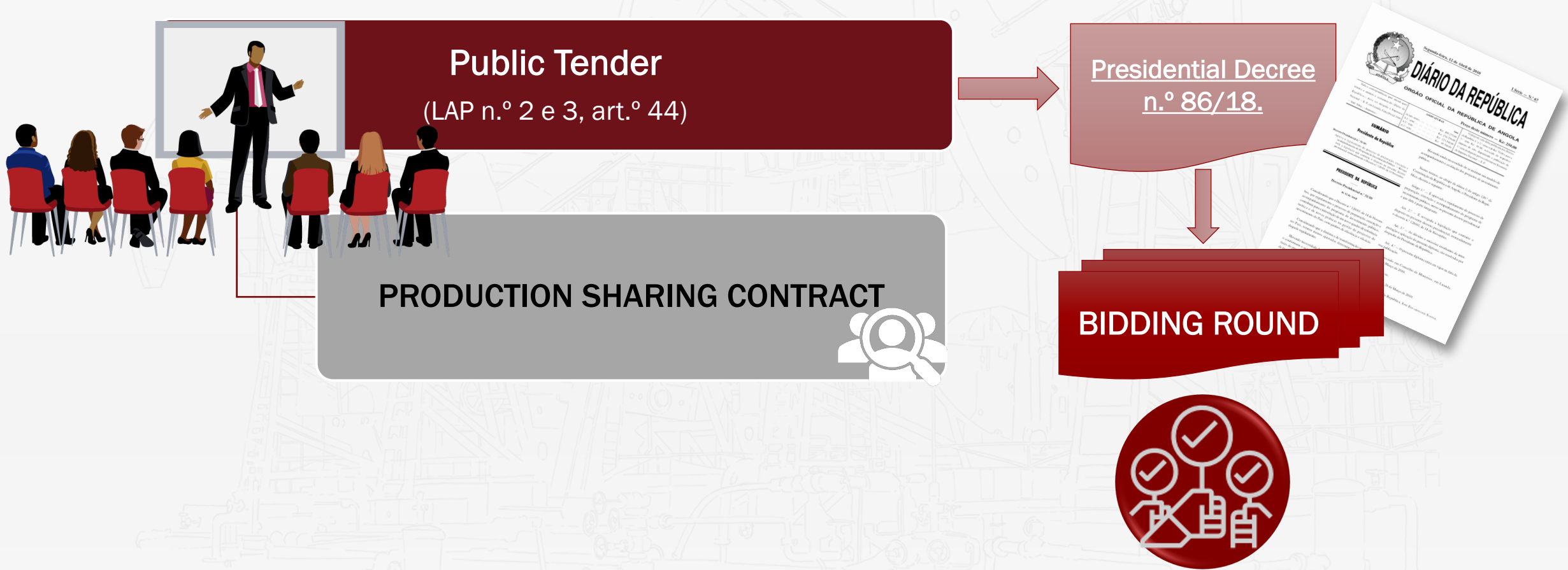


**2020 BIDDING ROUND AND  
CONTRACTUAL TERMS**



## LEGAL FUNDAMENTALS FOR THE 2020 BIDDING ROUND

In the Event of the National Concessionaire intends to associate with third parties to jointly carry out petroleum operations in given area, a public tender shall take place, under the terms of article 44 of Law 10/04, 12 November.



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## CONCEPTS AND DEMONSTRATION OF PRODUCT SHARING

### FISCAL TERMS

#### ❖ Costs Recovery Order

- a) Operation Costs.....100%
- b) Development Costs.....25%
- c) Exploration Costs.....100%

#### ❖ Petroleum Income Tax (PIT)

- a) National Companies .....35%
- b) International Companies .....50%

#### ❖ Amortization

- a) 25 % Year

#### ❖ OPEX and CAPEX Recovery:

- a) Cost Oil for each Development Area

#### ❖ Uplift:

- a) To the Development Costs is added the uplift.

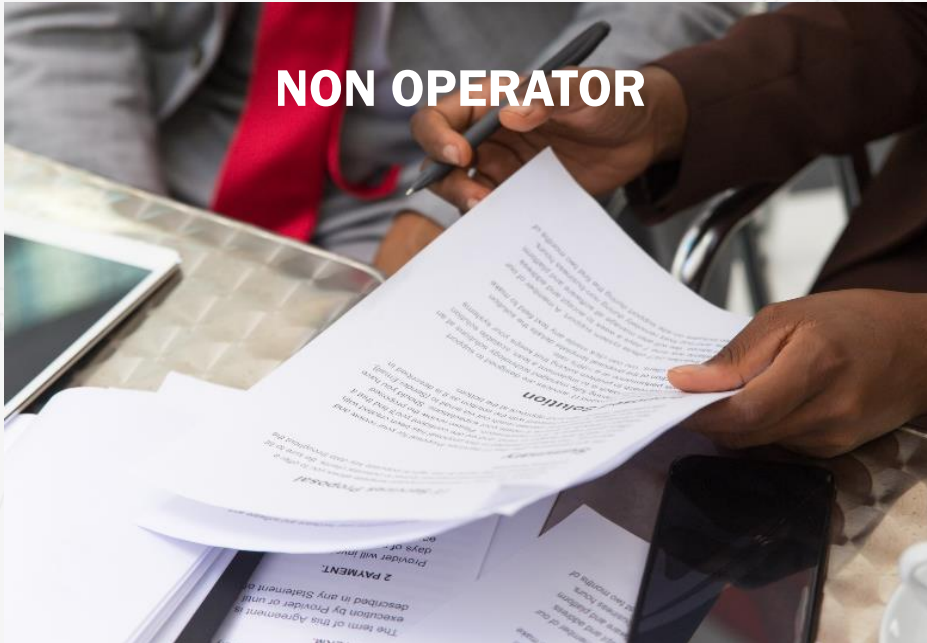
#### ❖ Profit Oil

IRR	% NC	% CG
>15%	20%	80%
15% to 20%	30%	70%
25% to 30%	40%	60%
<30%	60%	40%

### PRODUCTION SHARING



## CONDITIONS TO PARTICIPATE IN THE 2020 BIDDING ROUND PROCESS



### ENTRY FEE

Companies are required to pay a non-refundable entry fee of USD1.000.000,00 and are granted access to all data package for the Bidding Round blocks.

## 2020 BIDDING ROUND - III

**30<sup>th</sup> of April**

### BIDDING ROUND ANNOUNCEMENT

- 1 Concession Area Description
- 2 Terms of Reference
- 3 Rules and Procedures of the Tender
- 4 Type of Contract
- 5 Final Bid Submission Date



## 2020 BIDDING ROUND - III



### TERMS OF REFERENCE ITEMS

1

#### BIDDABLE ITEMS

- ❖ **BONUS AND CONTRIBUTIONS**
  - ✓ Signature Bonus
  - ✓ Contribution to Social Projects
  - ✓ Management Fee
- ❖ **MINIMUM WORK PROGRAM**

2

#### NON-BIDDABLE ITEMS

- ✓ *Cost oil*
- ✓ *Uplift*
- ✓ *Profit oil*

3

#### OTHER ITEMS: SONANGOL CARRY

## 2020 BIDDING ROUND - IV

### 9<sup>th</sup> of June

#### SUBMISSION OF PROPOSALS

1

The proposals shall be submitted in Portuguese (any other language must be officially translated to Portuguese)

2

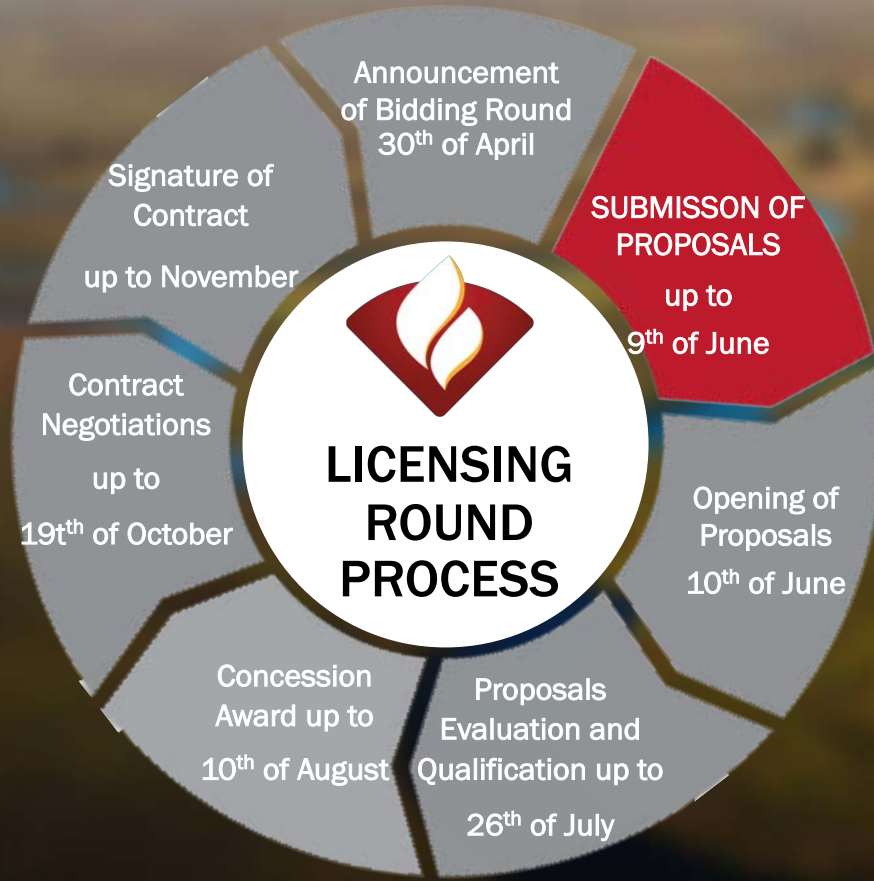
Closed and Sealed Envelope

3

Until 5:30pm of the 40<sup>th</sup> day from the tender announcement date

4

Submissions after the due date will not be accepted



## 2020 BIDDING ROUND - V

### 10<sup>th</sup> of June

#### OPENING OF THE PROPOSALS

1

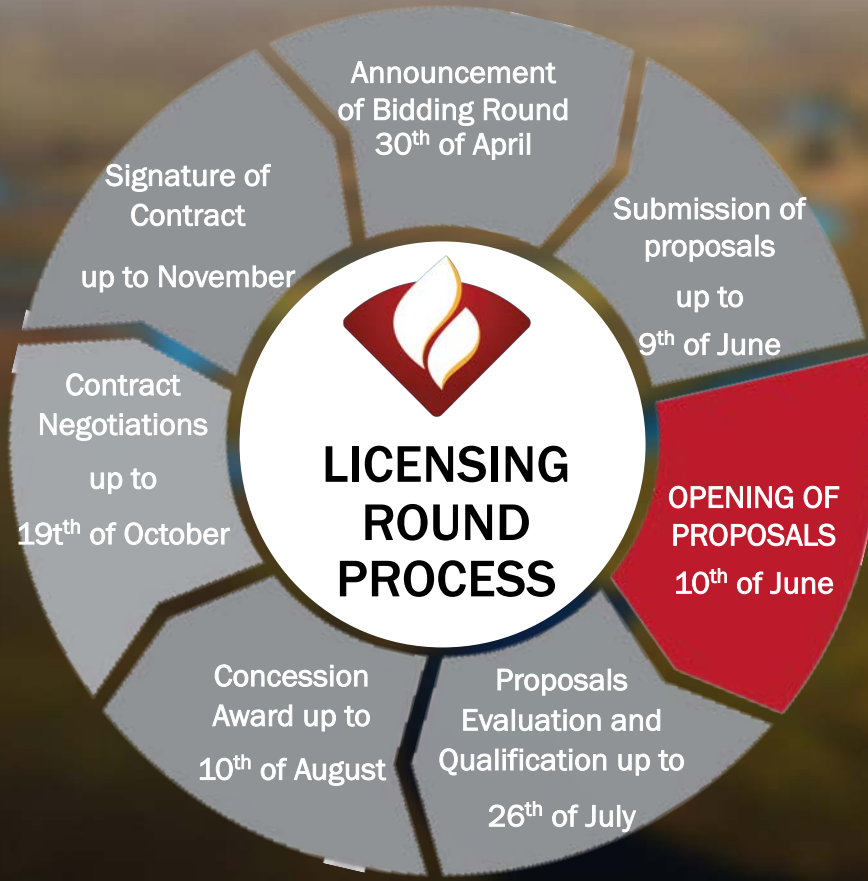
Evaluation board composed by ANPG, MIREMPET and MINFIN, which is established prior to the Public Act for the opening session

2

Opening of the proposals and application documents

3

Public disclosure of bidding contents and Terms of reference



## 2020 BIDDING ROUND - VII



### QUALIFICATION - REQUIREMENTS

1

#### NON OPERATOR

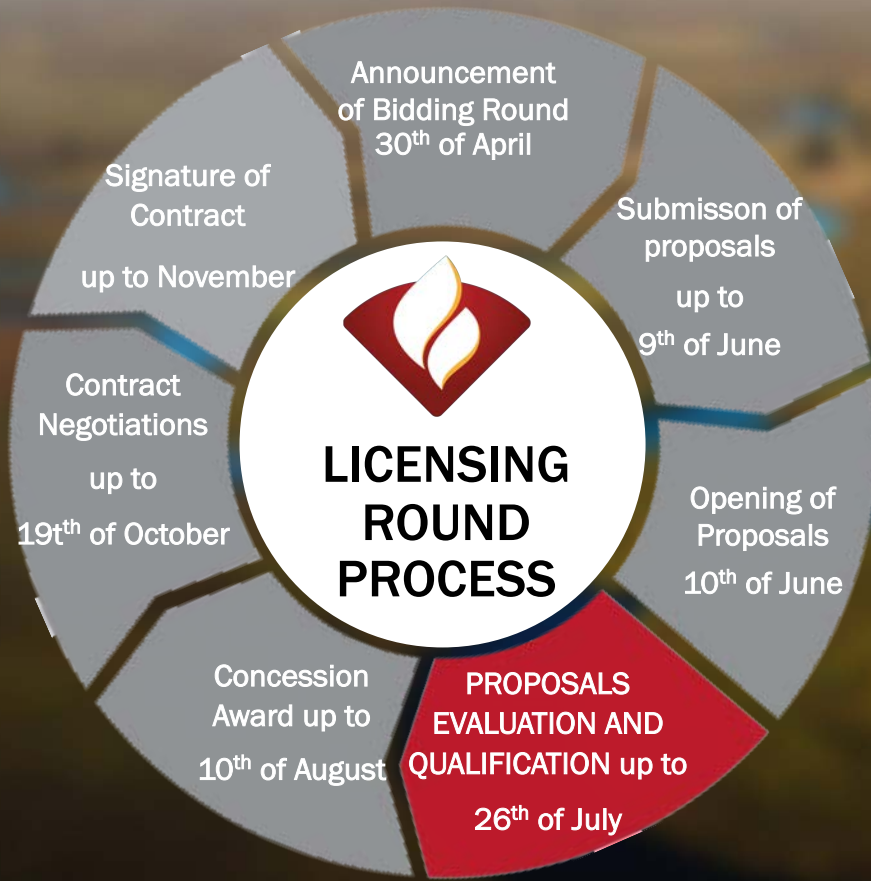
- ❖ Information on its capital structure
  - Equity
  - Current and fixed assets
  - Short and long term liabilities;
- ❖ References from reputable banking institutions supporting its financial capacity
- ❖ Annual reports of the activities, the balance sheet and financial records of the last three years or since its constitution

2

#### OPERATOR

- ❖ Proven competence and experience in the management and execution of petroleum operations
- ❖ Proven technical and operational competence
- ❖ Efficient organizational structure
- ❖ Provide relevant information on safety, environmental protection, pollution prevention and employment policies

## 2020 BIDDING ROUND - VI



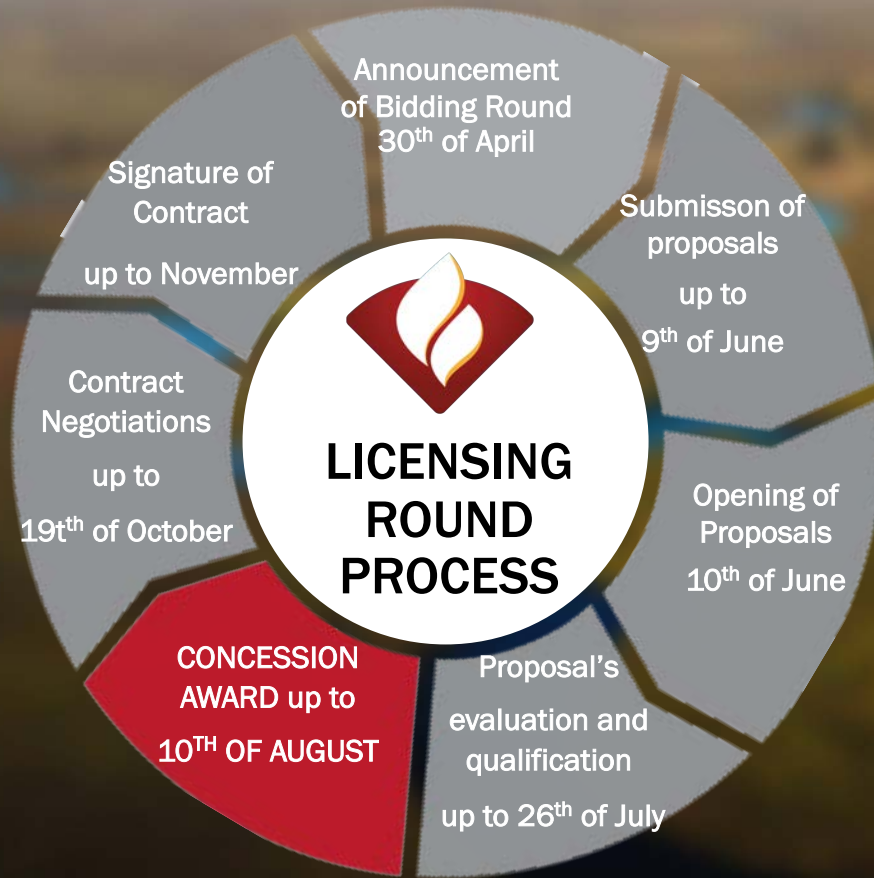
### EVALUATION OF PROPOSALS AND QUALIFICATION

- 1 Companies may apply to be Operator or Non-operator
- 2 Non-operators don't have to prove technical capacity
- 3 Operator must provide financial record of the last three years and proof of technical capacity
- 4 Companies have 10 days to correct irregularities in the submitted documentation
- 5 Bids are evaluated based on the weight assigned to each biddable item according to the Terms of Reference
- 6 Blocks will be awarded to bidders that present the highest bid

## 2020 BIDDING ROUND - VI

# 10<sup>th</sup> of August

### CONCESSION AWARD



1

A negotiation comitee is composed, 5 days following awarding

2

Awarding must be announced oficially to all bidders

3

Publishing of awarding on the National Gazzete, internacional media, website within 20 days closing of the proposal evaluation period

4

Decision regarding the appeal – 5 days after acknolegment of receipt

## 2020 BIDDING ROUND - IX

**19<sup>th</sup> of October**

### CONTRACT NEGOTIATION

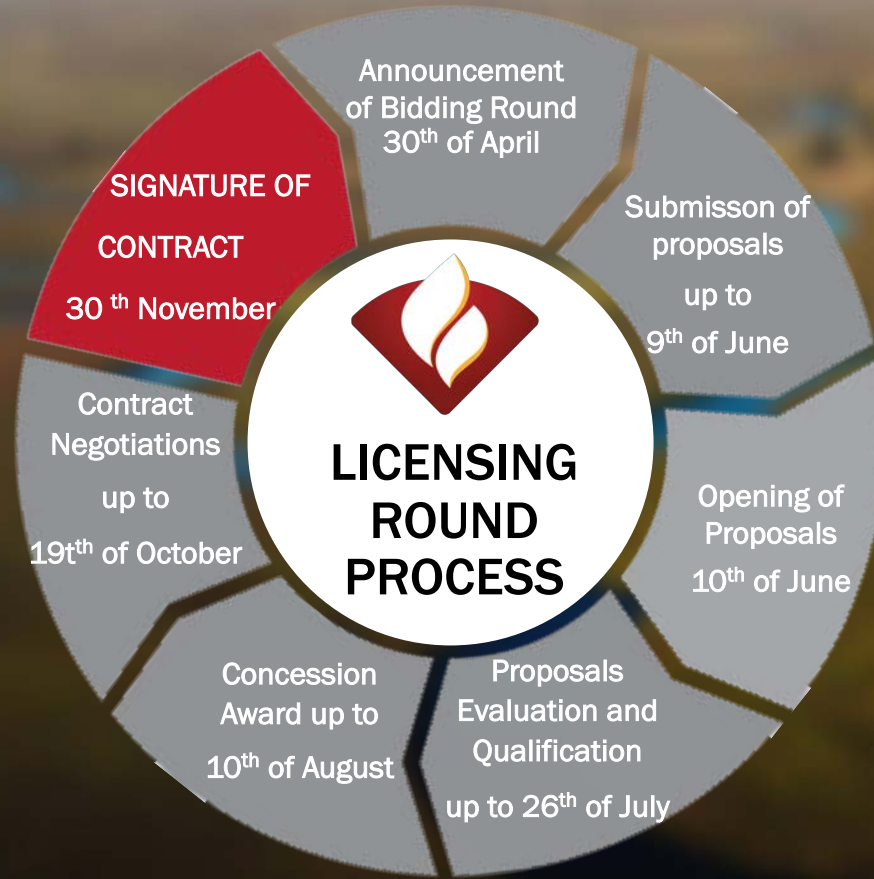


- 1 5 days after award, the Negotiation Committee is created
- 2 Negotiations between CN and GE are expected to take place over a period of 65 days

## 2020 BIDDING ROUND - X

**30<sup>th</sup> NOVEMBER**

### CONTRACT SIGNATURE



1

Chairman of ANPG and associates sign a Production Sharing Contract

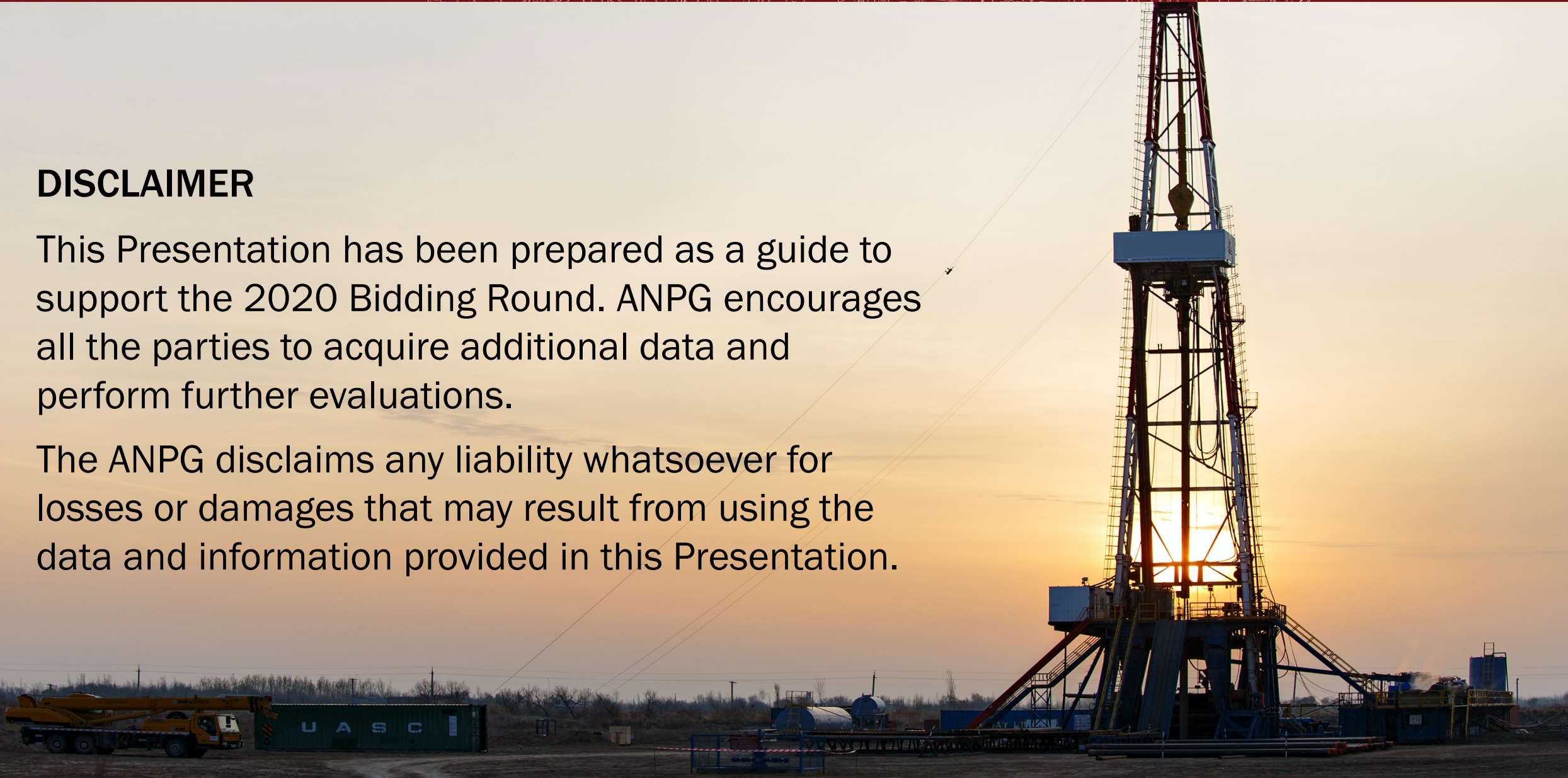
2

The Effective Date of the Production-Sharing Contract is the first working day of the following month after the contract signature.

## DISCLAIMER

This Presentation has been prepared as a guide to support the 2020 Bidding Round. ANPG encourages all the parties to acquire additional data and perform further evaluations.

The ANPG disclaims any liability whatsoever for losses or damages that may result from using the data and information provided in this Presentation.



# ONSHORE CONGO AND KWANZA BASINS LICENSING ROUND . 2020



## Q & A Session





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ROUND 2020  
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Thank You

