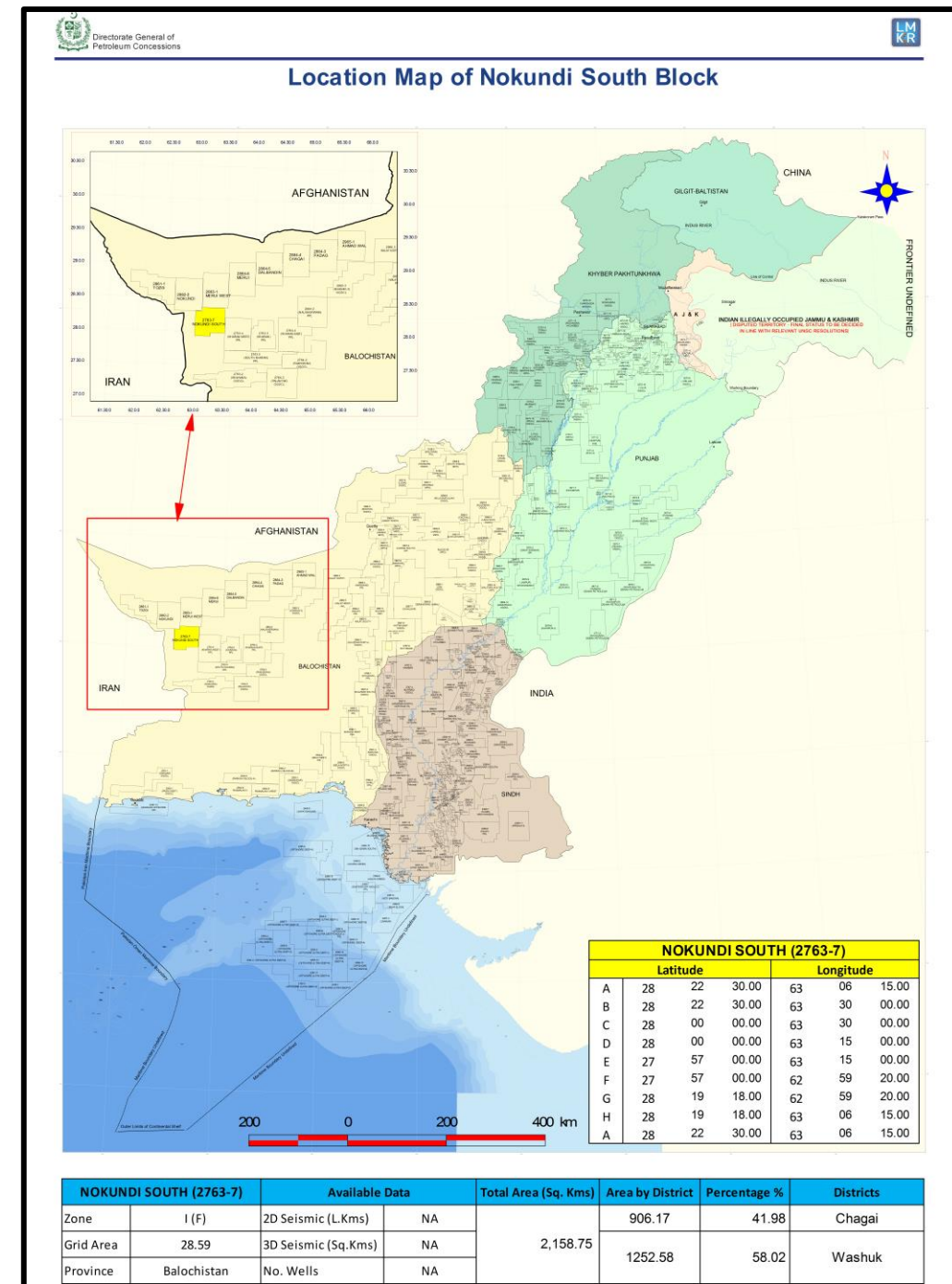# BLOCK: NOKUNDI SOUTH (2763-7)

ONSHORE BLOCK BIDDING ROUND 2025
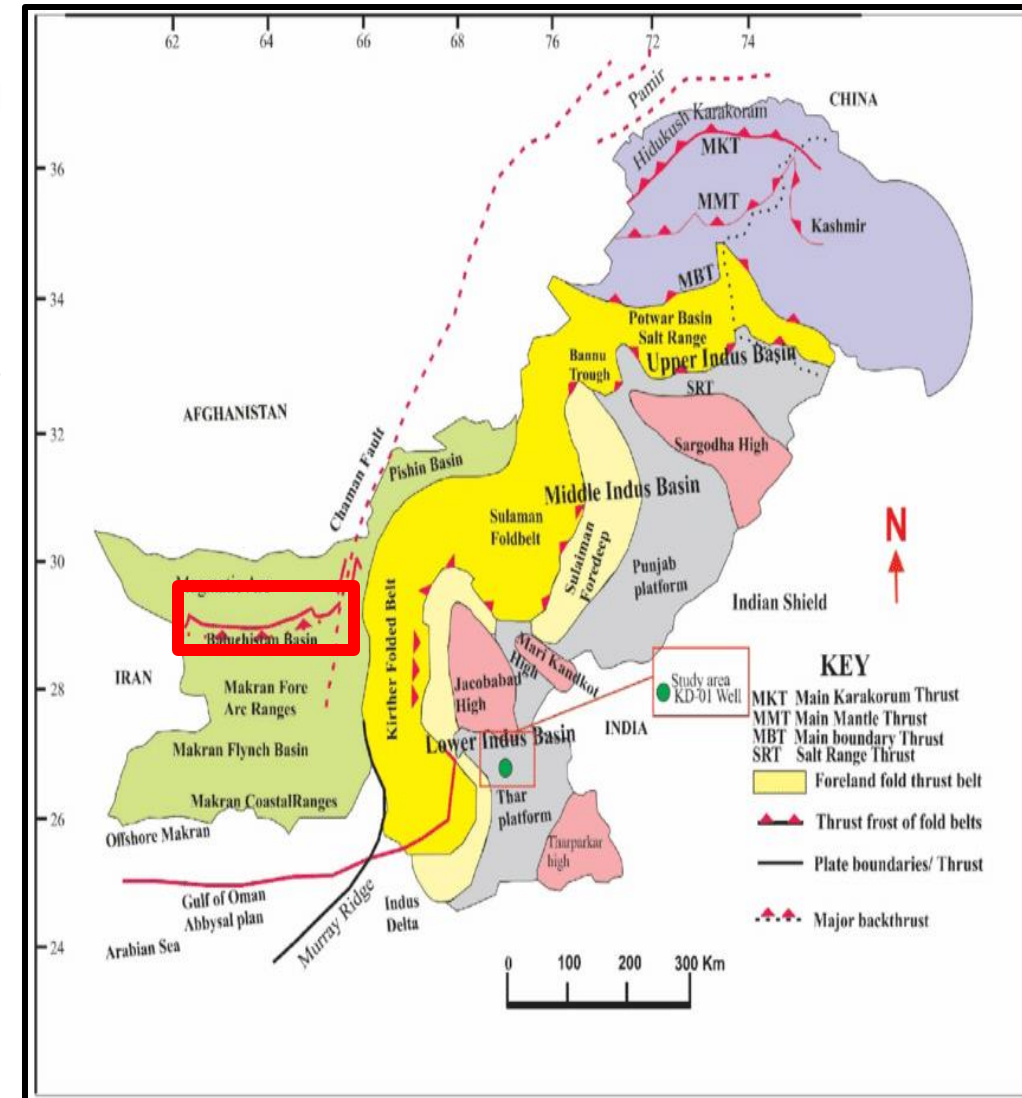
MINISTRY OF ENERGY PETROLEUM DIVISION (DGPC)

Introduction

- Nokundi South Block covers an area of 2158.75 Sq. Kms.

- Location: Chagai district, Balochistan, Pakistan

- Geological Basin: Balochistan, Basin Pakistan.

- The block falls in Prospectivity Zone I (F).

- Estimated Resources of the Balochistan Basin:

  - Oil: 8,676 million barrels

  - Gas: 78 trillion cubic feet

- PPL acquired some 2D data approximately 96.90 L. Kms in the block within the years 2012.

- The Block is surrounded by Merui West (North), Nokundi (North-West) and Kharan West blocks in South-East.

Riaz Ahmed 1998, Hydrocarbon Resource Base of Pakistan, Pakistan Journal of Hydrocarbon Research, Vol 10, 1-10

Location Map of Nokundi South Block

NOKUNDI SOUTH (2763-7)

	Latitude			Longitude		
A	28	22	30.00	63	06	15.00
B	28	22	30.00	63	30	00.00
C	28	00	00.00	63	30	00.00
D	28	00	00.00	63	15	00.00
E	27	57	00.00	63	15	00.00
F	27	57	00.00	62	59	20.00
G	28	19	18.00	62	59	20.00
H	28	19	18.00	63	06	15.00
A	28	22	30.00	63	06	15.00

NOKUNDI SOUTH (2763-7)		Available Data		Total Area (Sq. Kms)	Area by District	Percentage %	Districts
Zone	I (F)	2D Seismic (L.Kms)	NA		906.17	41.98	Chagai
Grid Area	28.59	3D Seismic (Sq.Kms)	NA	2,158.75			
Province	Balochistan	No. Wells	NA		1252.58	58.02	Washuk

Geological Map

- The subduction of Arabian plate beneath the Indo-Pak subcontinent produced variable compressional structures in Baluchistan Basin.
- Towards the Makran area, these fold beds are much more pronounced.
- Chaghai Magmatic arc is also a consequence of these collisions.
- The anticlinal structures produced along with a combination of thrust faults and anticlines act as favorable environments for hydrocarbon accumulation in the area.
- Towards the west, along the Afghanistan boundary is the Chamman strike slip fault (a transform fault) having characteristics associated with compressional components.

Dar, Qamar UZ Zaman, et al. "The impact of diagenesis on the reservoir quality of the early Cretaceous Lower Goru sandstones in the Lower Indus Basin, Pakistan." *Journal of Petroleum Exploration and Production Technology* (2022): 1-16.

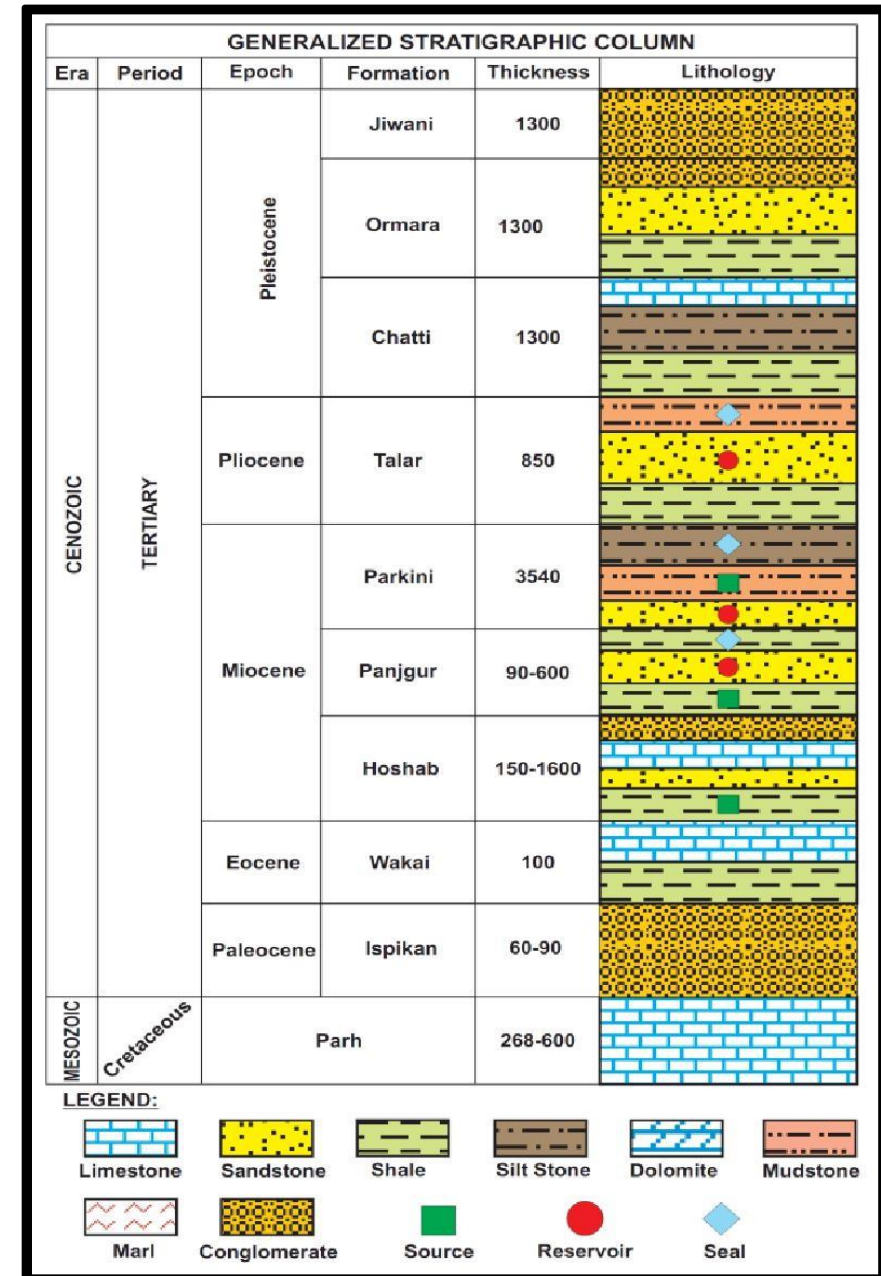# Petroleum System

- **Source Rock**:

1. The main source rock of Makran Fold-belt include shales of Oligocene (Hoshab Formation), Miocene (Panjgur and Parkini Formation) and Pliocene (Talar Formations).

2. The estimated organic matter for the source rocks ranges from about 0.48 wt. % to 5.62 wt. % TOC with gas generation potential.
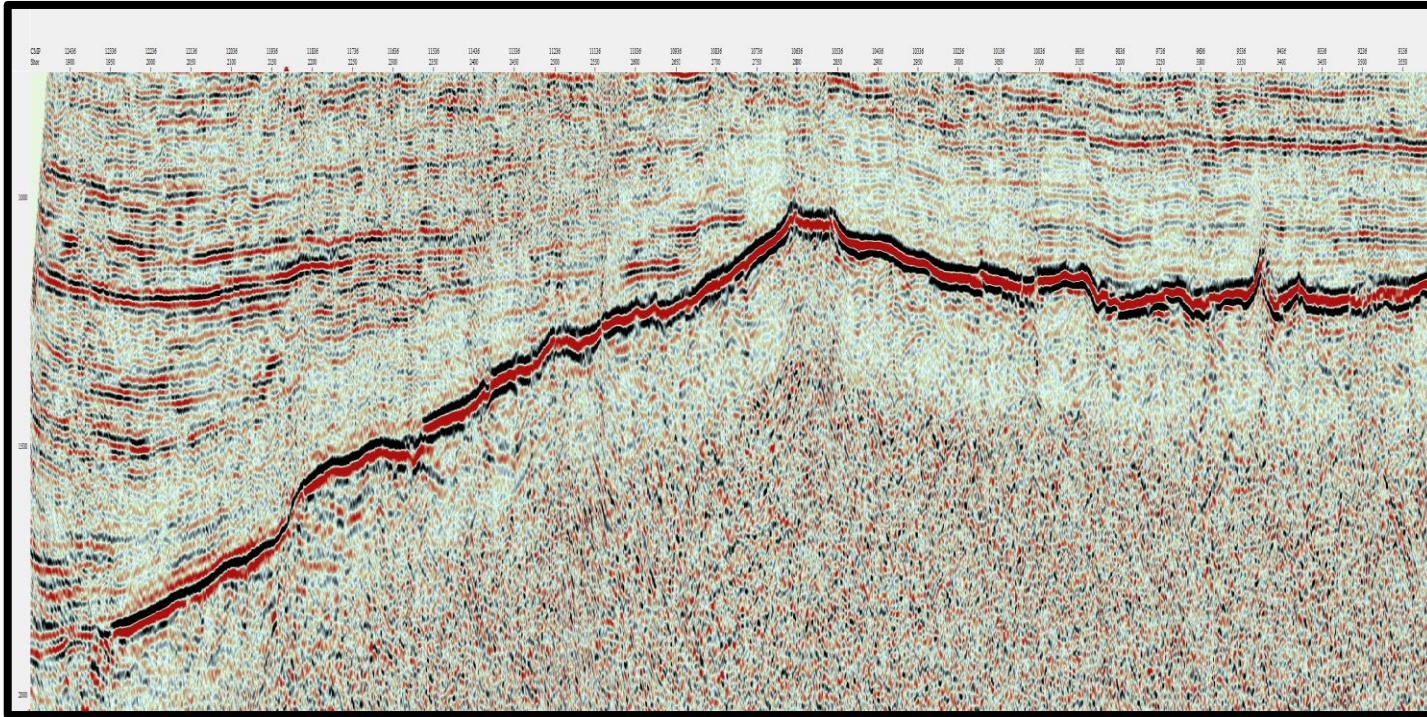
- **Reservoir Rock**:

3. Middle to Upper Miocene turbidities of Panjgur and Parkini Formation are considered as reservoir rocks.

4. Lithologically turbidities are fine to coarse grained sandstones with shale intercalations. Panjgur samples show sandstone porosities of up to 17.34%.

- **Seal**:
5. Shale horizons of abyssal sediments in Panjgur and Parkini formations are characteristically fine grained and well cemented which might provide an adequate seals

GENERALIZED STRATIGRAPHIC COLUMN

Era	Period	Epoch	Formation	Thickness	Lithology
CENOZOIC	TERTIARY	Pleistocene	Jiwani	1300	
			Ormara	1300	
			Chatti	1300	
		Pliocene	Talar	850	
		Miocene	Parkini	3540	
			Panjgur	90-600	
			Hoshab	150-1600	
		Eocene	Wakai	100	
		Paleocene	Ispikan	60-90	
MESOZOIC	Cretaceous		Parh	268-600	

LEGEND: Limestone, Sandstone, Shale, Silt Stone, Dolomite, Mudstone, Marl, Conglomerate, Source, Reservoir, Seal

Cromie, Conall, et al. "Tectonostratigraphic evolution and hydrocarbon prospectivity south of Gwadar Bay, Makran accretionary wedge, offshore SW Pakistan." *Journal of Petroleum Geology* 45.2 (2022): 179-199.
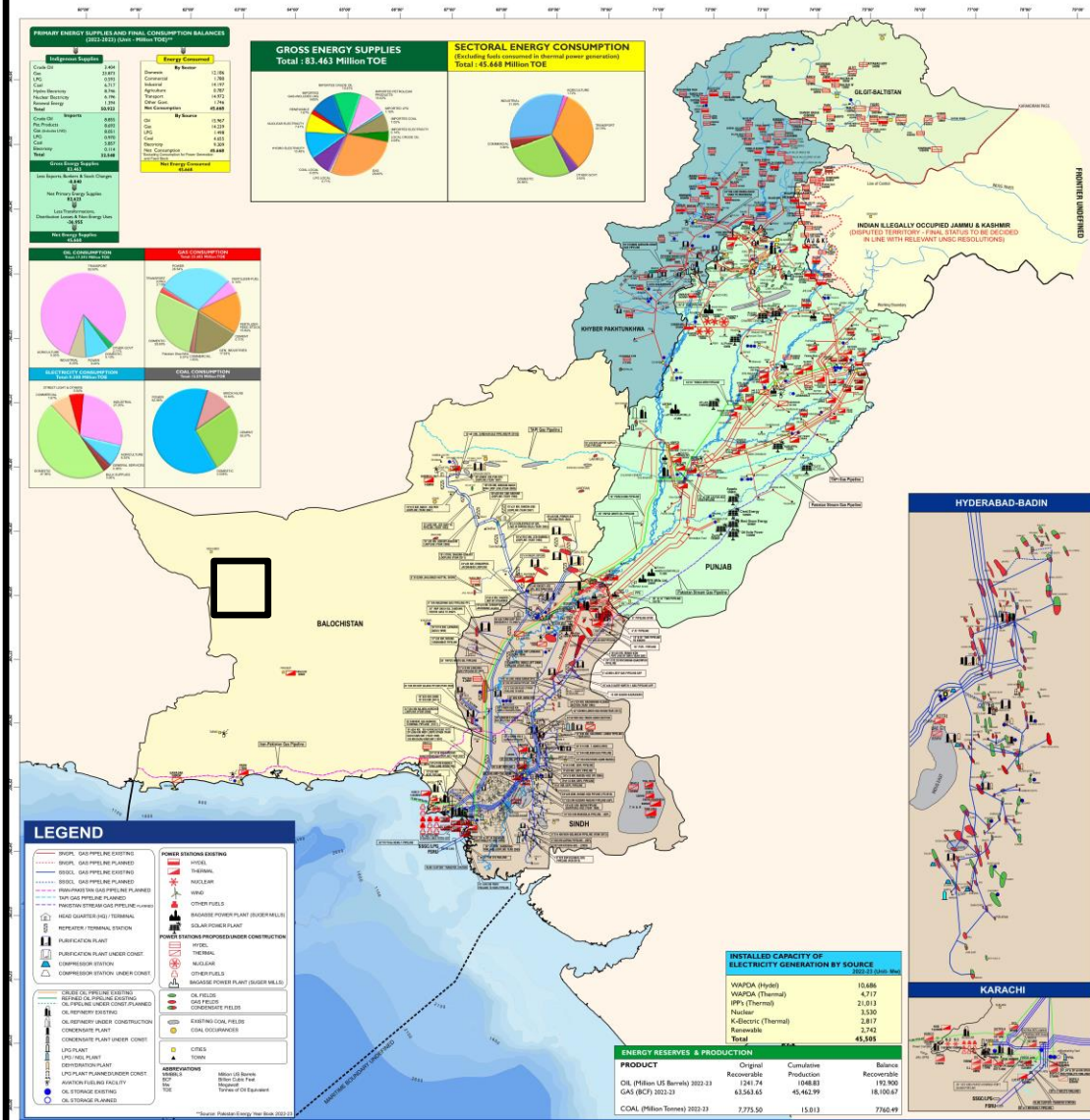
Prospectivity

- The main trapping mechanism in this area is considered to be Structural and stratigraphic traps.
- High resolution seismic data can allow to delineate true potential of the block.
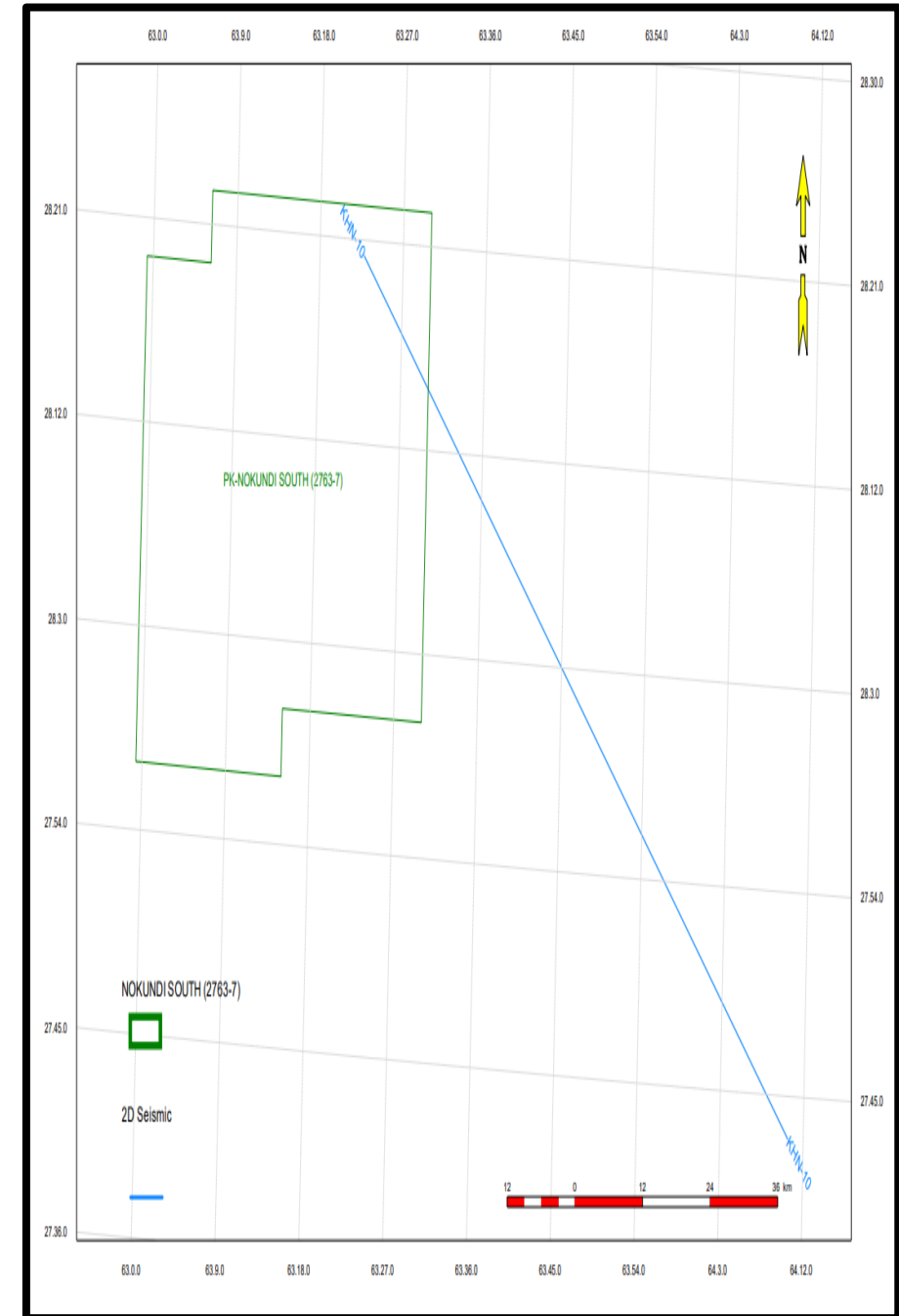
Infrastructure Map

- Government support to companies for infrastructure development.

- Thermal power stations exist near the block.

Investment Benefits

- High risk, high reward.

- Largest gas discovery in the geographic province.

- Low cost on infrastructure development within limited timeframe.

- Return on Investment within 3 years.

- Attractive government policies for foreign investors.

- Excellent purchase rate set by the Government against the discovered commodity.

- Government will guarantee to buy the gas or oil discovered.

- Attractive price in case of tight gas discovery.

Block Summary

Item	Indicators
Probable multiple sources in the region	Positive Indicator
Discoveries in Geographical Province	Positive Indicator
Nearby Infrastructure	Positive Indicator
ROI in 3 Years	Positive Indicator

THANK YOU