



Smart Solutions for Today's Geoscientist



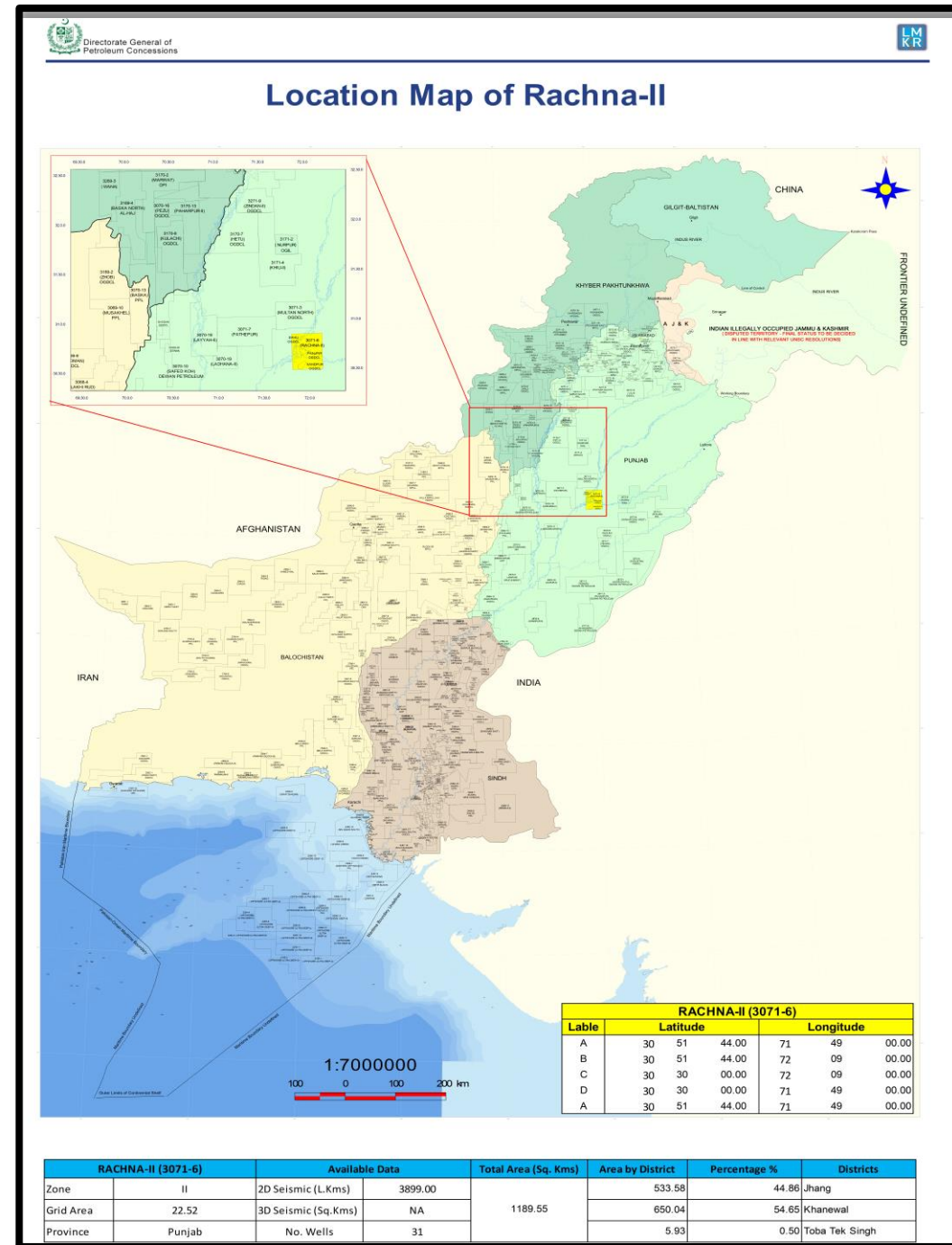
BLOCK: RACHNA-II (3071-6)

ONSHORE BLOCK BIDDING ROUND 2025

MINISTRY OF ENERGY PETROLEUM DIVISION (DGPC)

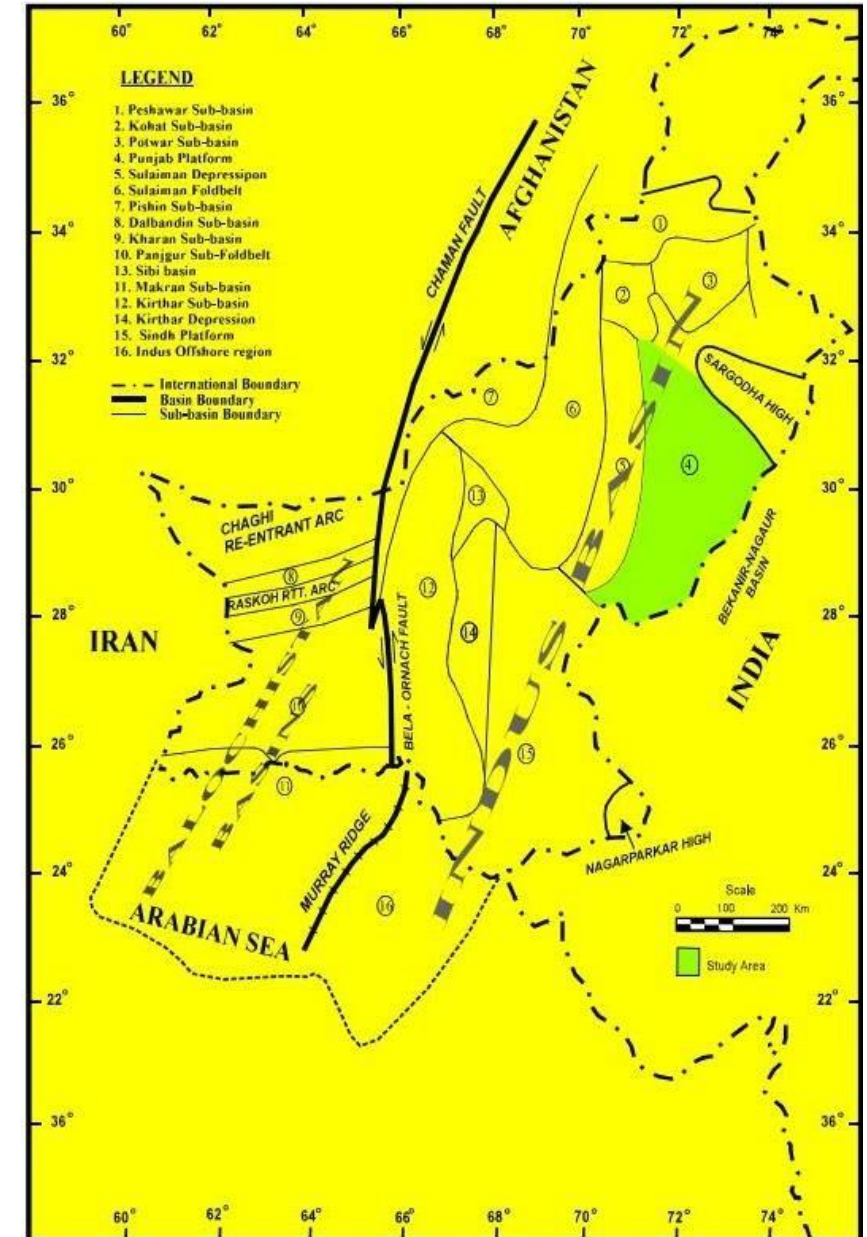
Introduction

- Rachna-II Block covers an area of 1189.55 sq.km.
- Location: Jhang, Khanewal and Toba tek singh district, Punjab, Pakistan.
- Geological Basin: Punjab platform, Basin Pakistan.
- The block falls in Prospectivity Zone II.
- Estimated Resources of the Central Indus Basin:
 - Oil: 2880 million barrels
 - Gas: 69.12 trillion cubic feet
- OGDCL, Amoco and Shell acquired some 2D data approximately 3899 (L.Kms) in the block within the years 1973, 1978, 1980, 1983, 1984, 1985,1986, 1987, 2004, 2005, 2006, 2007, 2008, 2009, 2011 and 2012.
- The Block is surrounded by Multan North (North) and Fatehpur and Ladhana west (West) blocks.
- 31 wells drilled in the vicinity are Bagh X-01, Multan North -01, Sohniwala-01 and Zakria 01 etc.



Geological Map

- The Punjab Platform is a westward dipping monocline covered by alluvium and is situated at the eastern segment of the central portion of Indus Basin, Pakistan.
- It is bounded by Sargodha high in the north, Mari High in the south and merges into Sulaiman depression in the west, towards east it extends into Bikaner-Nagaur Basin of India.
- The rifting of Indian Plate as part of Gondwanaland super-continent started in Late Proterozoic time, which resulted in the deposition of Infra-Cambrian sediments over the Pre-Cambrian basement. The rift associated faults are visible on seismic profile of Bikaner-Nagaur basin and Punjab Platform.
- Whereas in Punjab Platform the normal faults show minor displacement. After a long hiatus of about 250m.y Gondwanaland was once again subjected to rifting during Permo-Triassic time.



Petroleum System

Source Rocks:

- Sembar Formation (Cretaceous) and Intra-Formational Shale units are the source rocks in the area.

Reservoirs:

- Pirkoh (Late Eocene), Habib Rahi (Middle Eocene), Sui main Limestone (Eocene), Dunghan (Paleocene) and first three sand intervals of Lower Goru Formation (Early Cretaceous) are reservoirs of the area.

Seal:

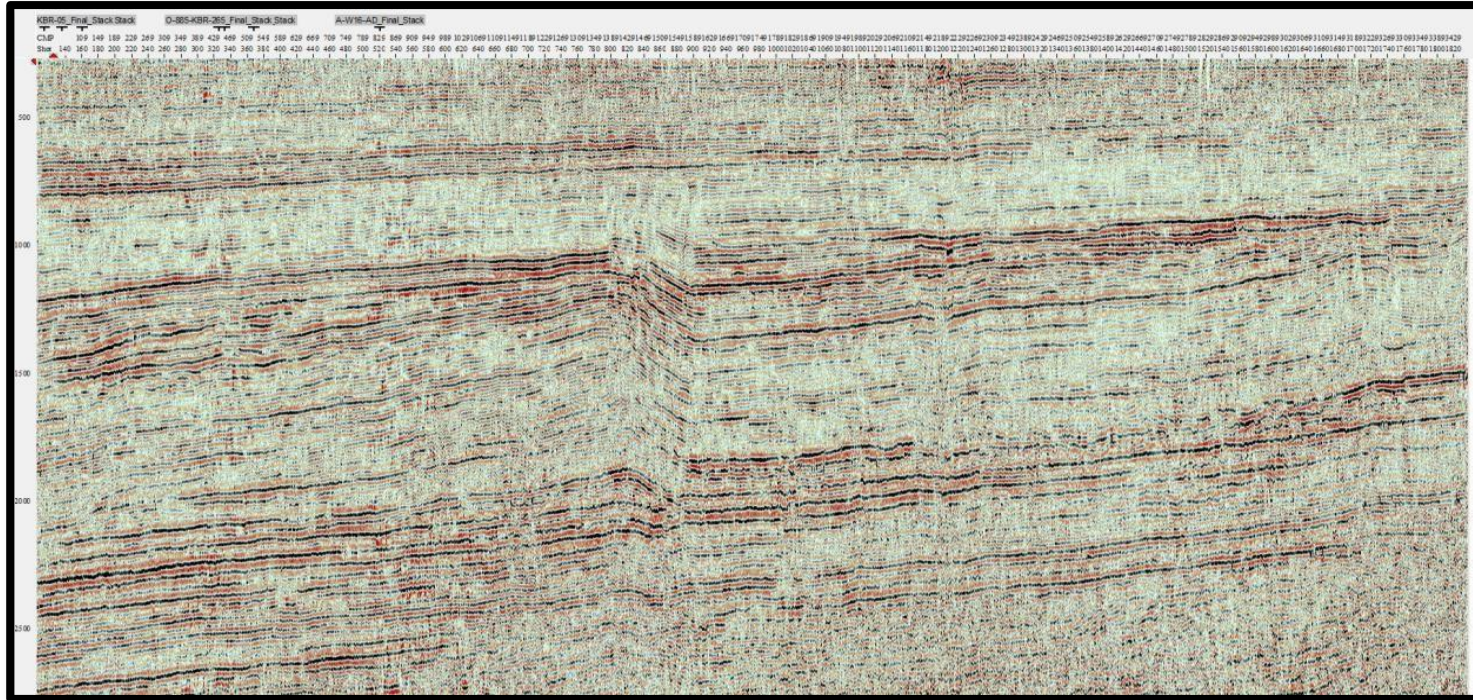
- Upper Goru Formation (Cretaceous), Ghazij Shale (Eocene) along with Sirki Shale (Eocene) acts as a seal.

Trap:

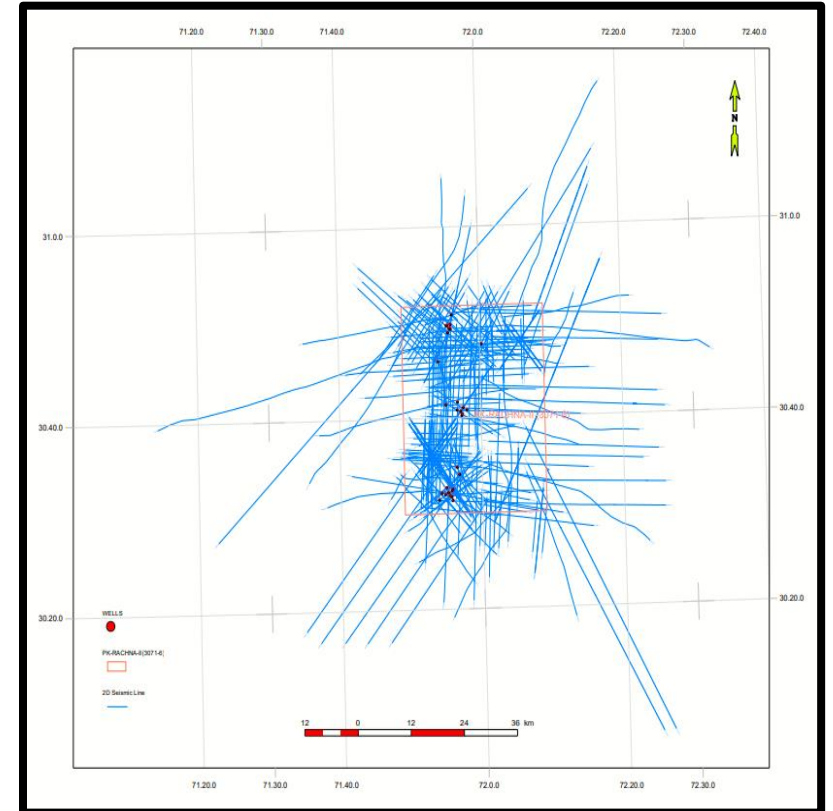
- Both structural and stratigraphic traps are present.

AGE	STRATIGRAPHY	LITHOLOGY	RESERVOIR POTENTIAL			OIL / GAS SHOWS	FIELDS	
			SOURCE	CAPROCK	RESERVOIR			
RECENT / PLIOCENE	ALLUVIUM / SIWALIKS							
E O C E N E	KIRTHAR FM.	DRAZINDA MB.		C				
		PIRKOH MB.			R			
		SIRKI MB.		C				
		HABIB RAHI MB.			R	*	Mari	
	LAKI FM.	GHAZIJ MB.		C				
		SUI MAIN LST. MB.			R	*	Kandhkot, Sui Qadirpur, Pirkoh	
P A L E O C E N E	DUNGHAN FM.		C		R	*	Zarghun	
	RANIKOT FM.		C			*	Pirkoh	
	PARH FM.				R			
U P P E R C R E T A C E O U S	UPPER GORU MB.							
		SHALE INTERVAL	S	C				
	LOWER GORU MB.	"D" INTERVAL			C			
		"C" INTERVAL	S	C	R	*	Sawan, Mari Latif	
		"B" INTERVAL	S	C	R	*	Miano, Rehmat, Kadanwari	
		"A" INTERVAL			R	*		
LOWER CRETACEOUS	SEMBAR		S					
JURASSIC	CHILTAN							

Prospectivity

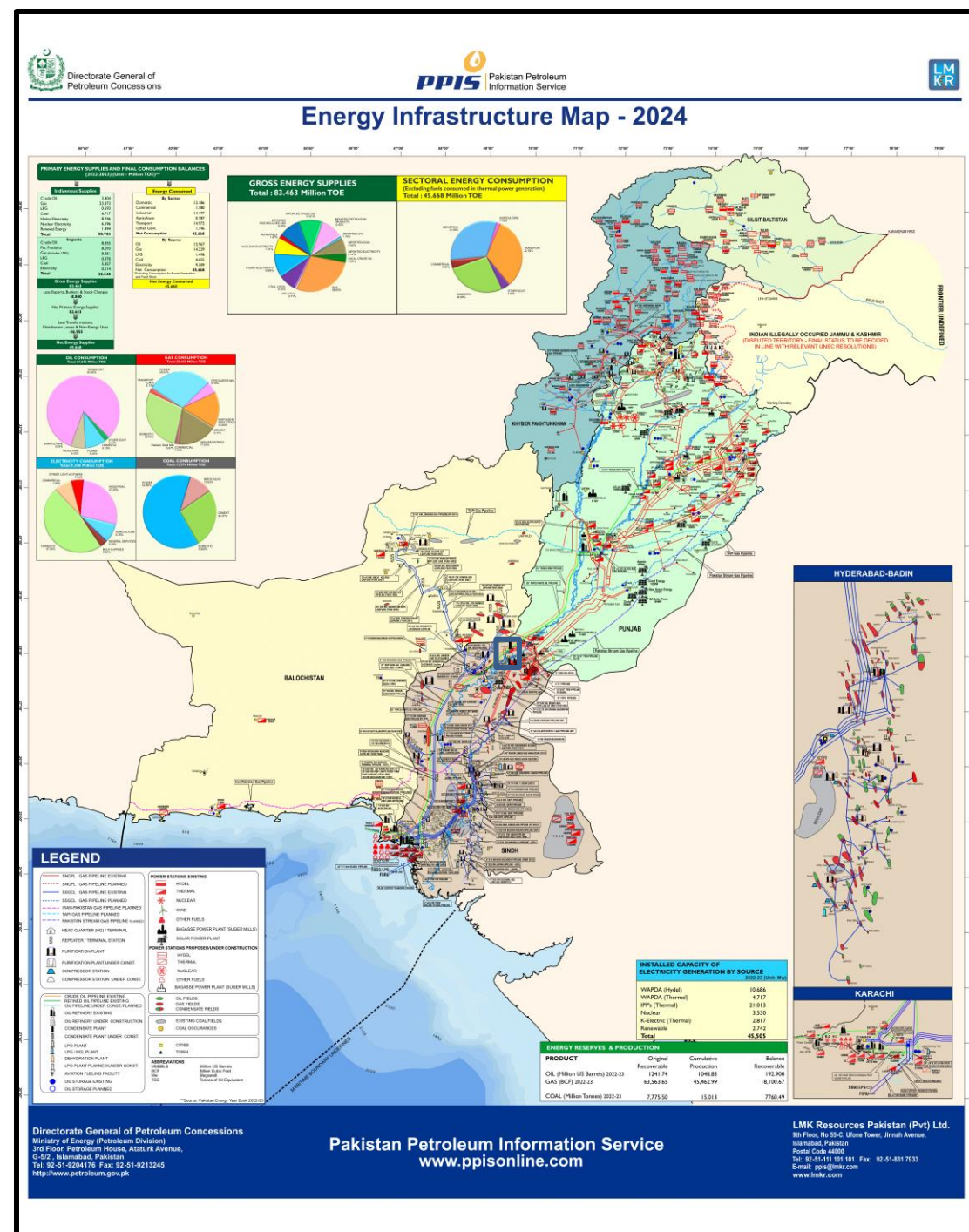


- The Proterozoic rifting caused normal faulting, that may offer traps for Infra-cambrian reservoirs.
- The truncation of Mesozoic and Late Paleozoic reservoirs below the Base Tertiary unconformity could provide a potential trapping mechanism.
- High resolution seismic data can allow to delineate true 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

