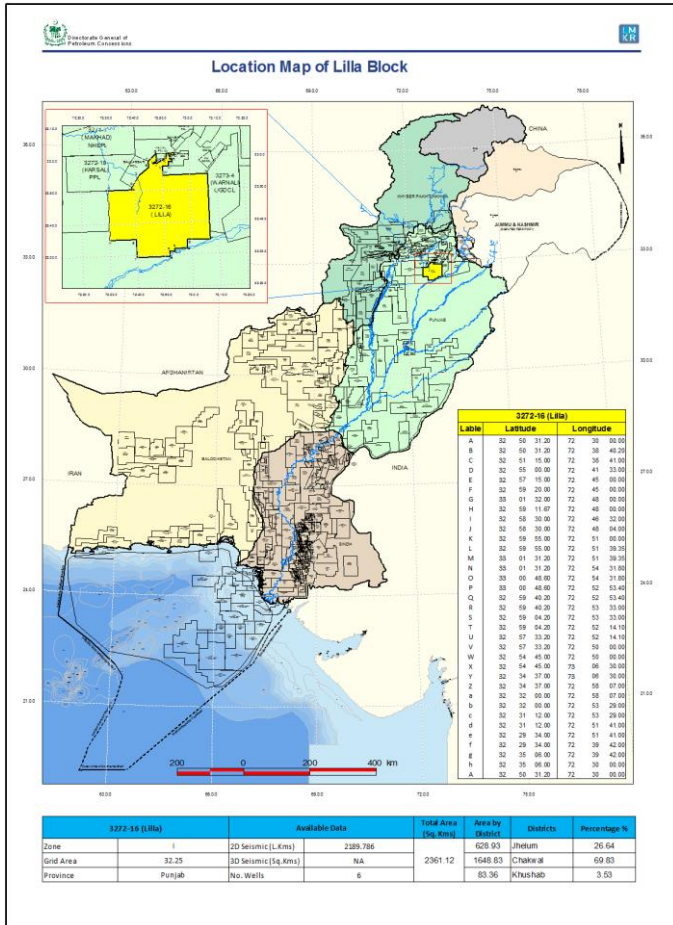


LILLA BLOCK (3272-16)

Introduction

Lilla Block covers an area 2361.12 sq km and is located in Chakwal, Jhelum, and Khushab districts of Punjab Pakistan. Geologically, it lies in the Upper Indus Basin of Pakistan. The block falls in Prospectivity Zone I.

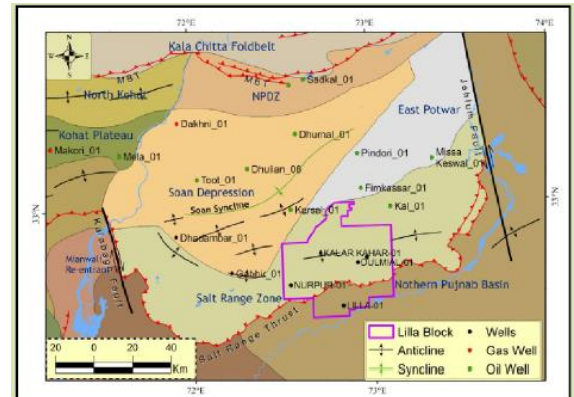


Geology and Tectonics

Geologically Lilla block is located in the central part of Salt Range in Potwar Fold and Thrust belt. The Potwar Foldbelt Basin, is a structurally defined petroliferous basin, on the northwest margin of the Indian Plate. The area is composed of numerous structural-tectonic subdivisions which comprises of the Potwar Plateau, the Soan Syncline and the Salt Range zone. The northern boundary is marked by Main Boundary Thrust (MBT) between the Potwar Plateau and the Parachinar-Kala Chitta Fold Belt. While the southern boundary is marked by the Salt Range

Thrust against the quite undeformed rocks of the Punjab Sub-basin. The Potwar Plateau and the Salt Range is detached from the Hazara-Kashmir Syntaxis to the east by the sinistral Jhelum Fault. The dextral Kalabagh Fault cuts and displays the Salt Range thrust in the west.

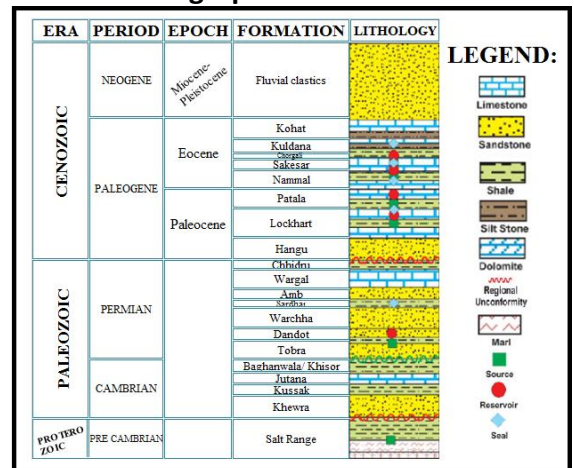
Geological Map



Stratigraphic Sequence

Stratigraphy in the block and its surrounding area ranges from Pliocene to Precambrian, with major unconformities at Base Permian, Base Paleocene, and Base Miocene levels.

Generalized Stratigraphic Chart



Petroleum Play

The presence of various oil producing fields around this block area confirms the presence of an active petroleum system which consists of all the necessary elements for the generation and accumulation of hydrocarbons.

Source

The sedimentary sequence consists of a number of source horizons which include shales of Precambrian, Permian, Paleocene, and Paleocene-Eocene carbonates.

Reservoir

The proven reservoirs in the area include the Chorgali and Sakesar Formation (Eocene), Lockhart and Patala limestone (Paleocene), Kingriali Formation (Triassic) and Tobra Formation (Permian).

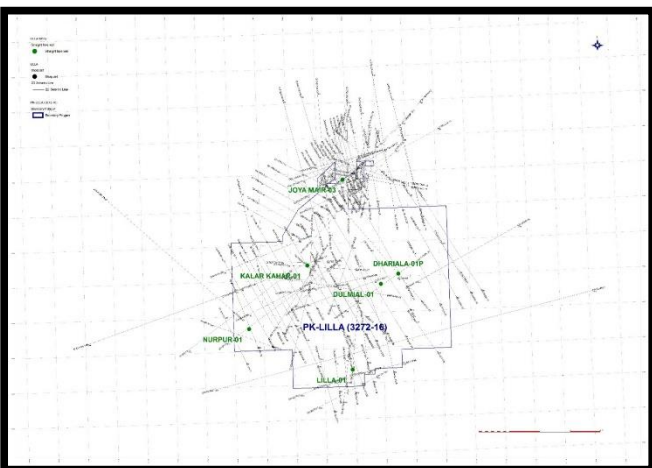
Seal

The potential seals for Sakesar and Chorgali (Eocene) reservoirs, include Clays and shales of Kuldana Formation (Eocene) and Murree Formation (Miocene) whereas the seals for Lockhart and Patala (Paleocene) reservoirs are the intra-formation tight limestone and shale. Shales of Dandot Formation (Permian) and Kussak Formation (Cambrian) may act as potential seals for underlying reservoirs.

Trap

The potential trapping mechanism in the area include anticlines, pop-ups, and stratigraphic truncation traps.

Lilla Block Base Map



Well Data

WELL NAME	SPUD DATE	OPERATOR	WELL TD	TD FORMATION	PRIMARY TARGET
KALAR KAHAR-01	20/05/1957	POL	7130 ft	Salt Range	Chorgali and Sakesar
LILLA-01	21/01/1983	SHELL	2300 m	N/A	Permian and Cambrian S.st
NURPUR-01	24/02/1997	SHELL	2025 m	Subthrust of Saltrange	Paleogene L.st and Permian/Cambrian S.st)
DHARIALA-01P	17/01/1952	POL	8518 ft	Khewra S.st Gypsum Dolomite of Salt Range	Khewra S.st of Salt Range Fm
DULMIAL-01	01/01/1983	PMDC	N/A	N/A	N/A
JOYA MAIR-03	01/12/1945	POL	N/A	N/A	N/A

Seismic Data

2D SEISMIC DATA	3D SEISMIC DATA
Line km = 2189.786	3D data is not available