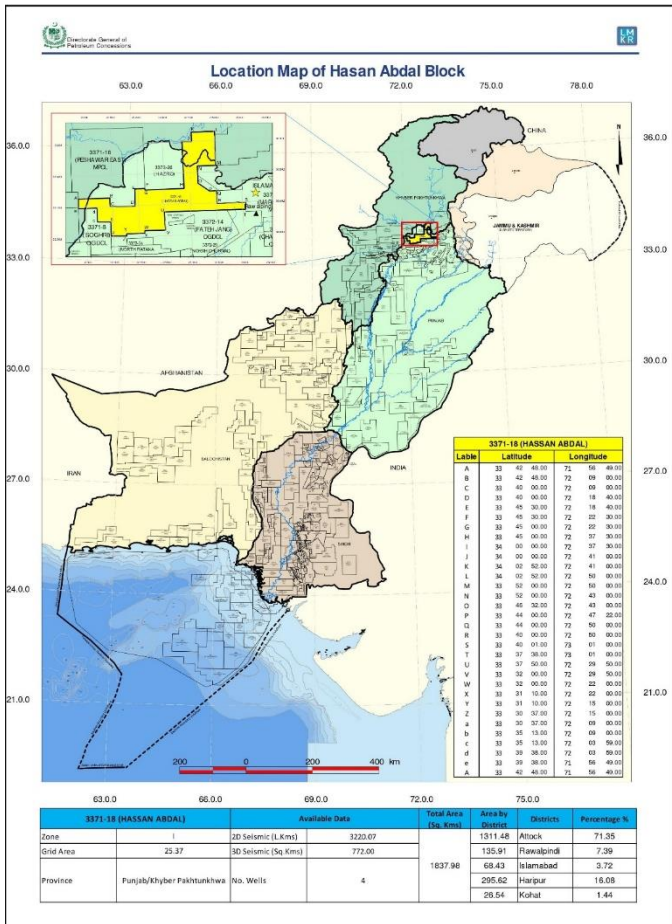


## HASSAN ABDAL BLOCK (3371-18)

### Introduction

Hassan Abdal Block covers an area of 1837.98 sq km and is located mostly in Attock, Rawalpindi, Islamabad, Haripur, and Kohat district of Punjab and Khyber Pakhtunkhwa Pakistan. The block is located about 73.5 km kilometers northwest of Islamabad. Geologically, it lies in the Kohat-Potwar Basin of Pakistan. The block falls in Prospectivity Zone I.

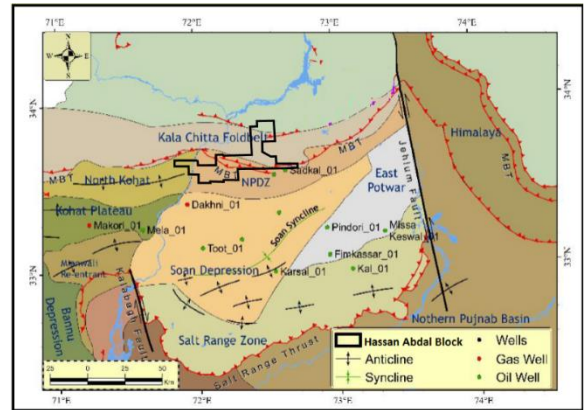


### Geology

In Hassan Abdal block, significant geology consists of the sedimentary rocks exposed in numerous portions on the northern and southern sections of the area with the alluvium set down in the Quaternary age in between the highs and lows of the region. The south of Attock district comprises of another prominent feature, the Kalachitta hills. The Kalachitta hills comprise of the Mesozoic rocks nearby the Rawalpindi group because of a major

thrust called the MBT. The Khair-i-Murat range which is located in the south of Kalachitta hills, is exposed along the Khair-i-Murat fault. Because of this major fault, the Paleocene and Miocene rocks have come closer to one another.

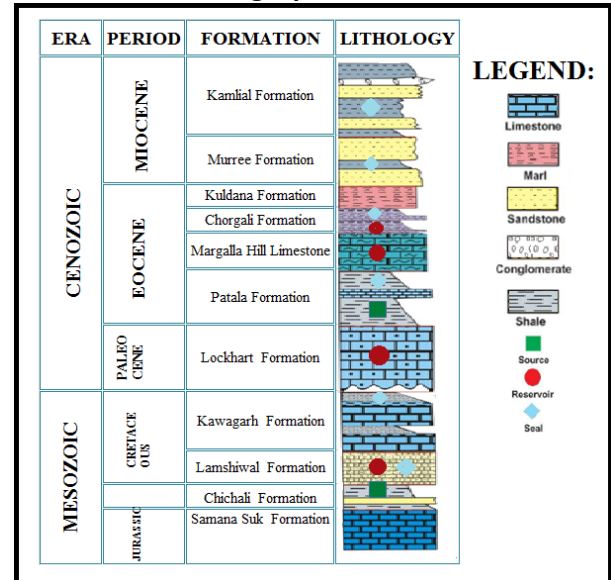
### Geological Map



### Stratigraphic Sequence

Stratigraphy in the block ranges from Jurassic to Miocene.

### Generalized Stratigraphic Chart



### Petroleum Play

In the Hassan Abdal area, there exists a compressional thrust associated environment, which gives rise to structural traps. A proven petroleum system exists towards the south of MBT.

## Source

Two source horizons are present in this area, Patala Formation (Eocene) and Chichali formation (Cretaceous).

## Reservoir

The expected reservoir of this block includes Chorgali Formation and Margalla Hill Limestone (Eocene), Lockhart Limestone (Paleocene) and Lumshiwal Formation (Cretaceous).

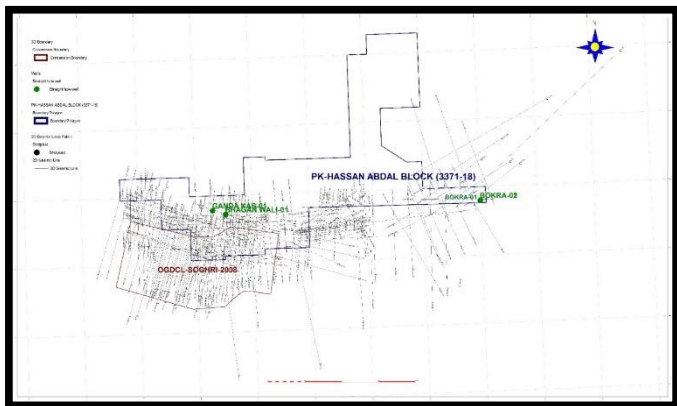
## Seal

The cap rocks of this area include the interbedded shales of the Kamliyal and Murree Formation (Miocene), Chorgali and Patala Formation (Eocene), and Lumshiwal and Kawagarh Formation (Cretaceous).

## Trap

The block consists of thrust anticlines which may provide trapping mechanism for the accumulation of hydrocarbons.

## Hassan Abdal Block Base Map



## Well Data

WELL NAME	SPUD DATE	OPERATOR	WELL TD (m)	TD FORMATION	PRIMARY TARGET
BHAGANWALI-01	31/10/2005	OGDCL	4800	Datta (Sandstone) Jurassic	Margalla (Eocene) and Lockhart (Paleocene)
BOKRA-01	26/01/1936	POL	N/A	N/A	N/A
BOKRA-02	19/05/1945	POL	N/A	N/A	N/A
GANDA KAS-01	1/1/1930	BOC	N/A	N/A	N/A

## Seismic Data

2D SEISMIC DATA	3D SEISMIC DATA
Line km = 3,220.07	Area km <sup>2</sup> = 772.00