

## CHAPTER 5

### CONCLUSIONS

In the study area, six horizons (A to F) were interpreted. Normal faults are mainly N-S to NNW-SSE trending with minor NW-SE trending faults. Normal faults are gently curved and planar. The throw on the west-dipping faults are up to 119 m (70 ms two way travel time) and the throw on the east-dipping fault is up to 306 m (180 ms two way travel time). The western part has five west-dipping normal faults but the eastern part has almost flat.

Stratigraphy in the study area comprises five units and there is one unconformity correlatable to the Mid-Miocene Unconformity. The five stratigraphic units correspond to the Lower to Recent sediments. Unit 1 consists of shales, fluvial point bar sands, coals and channel sands. Unit 2 comprised similar sediment with shales and coals at the upper levels. The top of Unit 3 contains red beds, point bar, coals and channel sands which continued to the bottom of Unit 4. Unit 5 and the top of Unit 4 consist of claystones, point bar and channel sands

The change in stratigraphic thickness from footwalls to hangingwalls can be interpreted in terms of structural development. The activity of faults decreases sharply at the contact between Unit 1 to Unit 2 and gradually decreases during the deposition of Unit 2 onward. Unit 1 might be a syn-rift sequence (Lower Miocene), and the interval of Unit 2 to Unit 5 probably is a post-rift sequence (Middle Miocene to Recent).

The petroleum potential areas are in the footwalls of fault 7 at the depth 1680 ms (1891 m) and the hangingwall of fault 8 at 1970 ms (2380 m) depth. The structural traps are mainly anticlinal closures that are intercepted by faults.