DEEP OVERPRESSURED PLAY: SECOND LIFELINE FOR WEST BARAM DELTA, EAST MALAYSIA

M Hafizan Abdul Wahab & Jennifer Chin Li Yen
Sarawak Exploration, PETRONAS Carigali Sdn Bhd,
Level 10, Tower 2, PETRONAS Twin Towers, 50088 Kuala Lumpur, Malaysia
hafizan_wahab@petronas.com.my
jenniferchin@petronas.com.my

Year 2010 marks 100 years of exploration activities in the West Baram Delta offshore Sarawak, one of the most prolific deltas in Southeast Asia. Ever since, a total of more than 50 exploration wells have been drilled targeting the conventional Middle Miocene Topset Clastic Play. The declining trend in both exploration success and production rates in recent years is alarming, hence the increased urgency of testing a new play concept.

The deepest well drilled recently entered an overpressured zone at depth of about 4km, with hydrocarbons still being encountered at the last penetrated reservoir. This success has triggered numerous ideas for the new potential hydrocarbon play type in the much deeper and severe overpressured reservoirs.

At these depths reservoir quality is the main risk associated with this new play. The biggest challenge for the exploration is associated with predicting the onset and magnitude of the overpressures as these have direct impact on in-place gas volumes, well design, and well deliverability.

This paper will discuss the new ideas behind evaluating the trap effectiveness, seal capacity, and reservoir quality of this overpressured play.

With a renewed exploration campaign targeting the deep overpressured play it is believed the West Baram Delta HC province can be rejuvenated.

REFERENCES


