



SEAPEX Exploration Conference 2007
Orchard Hotel, Singapore
24th – 26th April 2007

Day: Wednesday 25th April
Session: Indochina Session
Time: 0930 – 1000 hrs

Major Palaeozoic and Mesozoic Faults and Lineaments in Thailand – the Evidence for their Actual Location and their Influence on the Architecture of Hydrocarbon Bearing Basins

John Booth and Quentin Rigby
APICO

Thailand is composed of three separate tectonic terrains brought together during the early Triassic Indochina Orogeny. To the east lies the Indochina microplate and to the west the elongate Shan-Thai microplate, both largely underlain by continental basement. Between these lies the Central Thailand terrain, which is composed of the remnants of the Palaeo-Tethys oceanic plate.

Each of these terrains carries Palaeozoic fabrics, inherited in the main from their previous lives as part of Gondwanaland, which now have distinctly different orientations. Overprinting these are Mesozoic fabrics created for the main part during the Indosinian Orogeny, being most prominent in the Central Thailand terrain and along the bordering margins of the adjacent Indochina and Shan-Thai microplates.

From the mid-Cretaceous onwards, first with the docking of the West Burma terrain and then as a result of the Himalayan Orogeny, these Palaeozoic and Mesozoic fault systems have been reactivated and largely control the development of the Tertiary basins which have been the focus of most of the hydrocarbon exploration in Thailand.

We discuss the evidence for the existence and location of the major Palaeozoic and Mesozoic faults and lineaments in Thailand and their changing sense of motion through time. We will show how these faults and lineaments became

linked during the Tertiary and how this linkage, in response to the Himalayan Orogeny influenced and controlled the development of the prospective Tertiary basins.