

THE SEMANGGOL FORMATION – LITHOLOGY, FACIES ASSOCIATION AND DISTRIBUTION, AND PROBABLE BASIN SETTING

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The Semanggol rocks, located at three separate fault-displaced areas in north and south Kedah and east-central Perak, are gently folded and consist of conglomerate, sandstone with interbedded shale, shale with interbedded sandstone, shale and chert, interpreted to be in lateral and interfingering contact, representing lateral facies variation rather than in sequential superposition as have previously been reported. Based on lithology and facies relationship, the Semanggol rocks are interpreted to be of submarine fan, turbidite and basin deposits.

In north Kedah (Padang Terap), the conglomerate is found in the east, followed by interbedded sandstone and shale, shale and chert to the west, suggesting a source area in the east and basinal area in the west. Conglomerate is not found in south Kedah (Kulim-Baling); interbedded sandstone and shale are found in the east whilst chert and grey and red mudstone in the west, similarly suggesting an eastern source area with the basin in the west. In east – central Perak (Larut-Matang), however, conglomerate is found in the west, followed by interbedded sandstone and shale, black shale, red shale and chert to the east, suggesting an opposite situation, i.e. a source area in the west and the basin in the east.

Individually, the three areas seem to represent half-graben situations, the north and south Kedah areas having a west-facing half-graben, and the west-central Perak area having an east-facing half-graben. If the fault displacement is undone, a full graben situation is envisaged. The Semanggol rocks are further interpreted to have been deposited in a basin having full-graben configuration.