GEOLOGY OF THE CHIANG MAI BASIN

A Review
DEPOCENTRES - INTERPRETED FROM GRAVITY

Morley et al. (in press)
**ROCK TYPES & MINERAL COMPOSITIONS**

(a) Orthogneiss

(b) Bt, Kfs, Sil, Ms, Qtz

(c) Paragneiss

(d) Bt, Kfs, Sil, Qtz

MacDonald et al. (2010)
ROCK TYPES & MINERAL COMPOSITIONS

Calc-silicate gneiss

Granitic Mylonite

MacDonald et al. (2010)
SEISMIC INTERPRETATION

Possibly requires Palaeozoic rocks here to match with outcrop above detachment.

Late Inversion
Lt Miocene-
Pliocene??

Unconformity here suggesting 2 phases of extension.

Just a possibility the eastern basin is younger than the western basin.

Reflections from mylonites in gneisses?

Thrusts and imbricates in Palaeozoic rocks?

Crude attempt to depth convert line - shows how low angle the detachment is - about 15°

Morley C.K. (pers. comm.)
Top-Tertiary unconformity

Detachment at Top Pre-Tertiary

Potential active fault

All of the faults appear to be normal and some (blue lines) coincide with offset reflections at Quaternary level.

Seismic results from SEG sponsored ‘Geoscientist Without Borders’ field camp 2010