Alternate Fault Activity at Oil Field and Basin Scale, Analogy with Outcrops and with Seismicity Patterns

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Abstract/Excerpt

Alternate fault activity is a very common phenomenon that can be vital in understanding fault geometries and timing of activity, their importance in controlling sedimentation and the location of the next structural closure to be drilled.

Evidence of such alternate fault activity will be shown at oil field and basin scale; analogy and mechanism will be evidenced from outcrop exposures and from seismicity pattern through time.

Canadian analogues will be mentioned when not of exploration significance. All cases invoke a direction of maximum stress oblique to the preexisting fault system. Creation of new faults seems to coincide with the time of switch between active fault systems.