

**Abstract:**

**Assuming that the understanding of tectonics and structural evolution allows geologists, and particularly seismic interpreters, to propose *a priori* interpretations in compressional areas, where the quality of seismic data is poor, the main geological concepts of Southern Rocky Mountains are review. Indeed, in this particular area, *a priori* knowledge, which contrasts with empiric knowledge (derived from sensorial experience), is absolutely necessary to interpret the seismic lines and so predict the more likely location of the exploration wells.**