



Figure 1: Reactivation of Basement Faulting has Worldwide Exploration Implications

Reactivation Tectonics

TMI-02 is a structural geology technology based around the tectonic reactivation of basement controlled faults. The approach has been studied and written about extensively by Parker Gay, an 80 year old aeromagnetics specialist in Salt Lake City, Utah. The left side of Figure 1 shows a Landsat images over the Canadian Shield where basement faults outcrop. This type of lineated basement terrain underlays all sedimentary rocks. The right side of Figure 1 shows an example of faulting in the Black River Trenton limestone of New York mapped from aeromagnetics. In New York basement faults are the pathway for thermogenic fluids which alter the limestone to dolomite, replacing calcium carbonate with much smaller magnesium molecules, creating traps for prolific hydrocarbon deposits. In the Williston Basin, where sediment cover is old and brittle, reactivation of basement faults creates vertical faults, which fractures the rock in the vicinity of the fault, creating fracture permeability. In some Rocky Mountain Basin's reactivation of basement faults creates overthrust and anticline structures, which define the limits to many proven and undiscovered oil and gas fields.

DRC proposes a \$500,000 investment to evaluate, rank, do initial leasing on, and package and sell the portfolio of 40+ exploration opportunities Parker Gay has put together over his career. These opportunities can act as an analog for similar opportunities in other places around the world. Mapped opportunities range up to TCF and MMBOE fields. Parker Gay and his assistant Ben Opfermann are the technical team leaders on TMI-02.