Montana Geological Society 50th Anniversary Symposium
Montana/Alberta Thrust Belt and Adjacent Foreland
Volume II

# Architectonics of Cedar Creek Anticline

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## ABSTRACT

**The architectonics or structural design of Cedar Creek Anticline is typical of that in continental lithosphere. The anticline is a lineament zone of small constituent blocks that separates regional mosaics of larger lithosphere blocks. This pattern of various scale block mosaics results from the plate tectonic assembly of cratonic masses during the Precambrian. Cedar Creek Anticline is on the eastern side of the Wyoming Craton and is one of the structural trends that run parallel and oblique to the cratonic margin.**

**Deformation of Cedar Creek Anticline reflects the structural design. During the Paleozoic the anticline experienced tectonic reversal with the northern part responding differently than the southern part. These differences along the trend are also documented in the surface structures produced during the Laramide and in the subsurface geologic structure of specific oil fields.**

**The southeastern end of the Cedar Creek lineament zone terminates at the intersection with a northeast-trending lineament zone. Small blocks within both the northwest and northeast lineament zones have expressions on satellite images, high altitude air photos, and published maps of surface geology. Although faults are observed in outcrops along the northeast lineament zone, the structures are more subtle than along Cedar Creek Anticline. The architectonics of block mosaics at several different scales provides a useful model for paleotectonic interpretations and an important tool for hydrocarbon exploration.**