

Of reefs and ramps

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ABSTRACT

The geometry of the fold and thrust belt in the Findley and Cabin Creek area will be illustrated using industry 2D and 3D seismic data. It will be shown that the seismic data identify the presence of the Leduc reefs both within and immediately in front of the disturbed belt.

The geometry of the Leduc reefs will be shown to have played a significant role in the development of the structural trends. Examples from the Cabin Creek 3D seismic survey will show how the edge of a broad reef complex has created a lateral ramp in the major thrust fault. It will be demonstrated that this ramp has influenced the deformation of the entire Paleozoic section. The relationship between this deformation and the proven gas bearing structures in the area will be discussed.

The close relationship between the Leduc reef geometry and the development of the Findley structure, an anomalously high feature at the very front of the disturbed belt, will be discussed.