Geological Survey of Queensland

**Contact**

**Professor Alice Clark**
a.clark4@uq.edu.au

**Dr Mark Hinman**
m.hinman@uq.edu.au

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**Deep Mining Queensland (DMQ)**

Southern Cloncurry 3D Prospectivity-2

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**Seismic Interpretation.**

Detailed re-interpretation of 2 regional seismic lines and an onshore-deep and partially shallow-reprocessed line in the Starr Martin-Mount Dore region have significantly improved our understanding of the structure in the area. These new interpretations emphasise the moderately east-dipping attitude of most major structures and the late D2, over-thrusting of D3 folded and D4-placed deposits. The regional seismic lines are critically constrained by the DMQ re-build solid Geological interpretation shown on poster 1.

**Sectional Interpretation.**

These recent interpretations have substantially constrained the dimen-
sional relationships of the structures which are being used to form the initial model 3D geological model that will allow targeting a number of sections along the southern Cloncurry belt.

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**3D Model under construction**

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**3D Geological Model & Prospectivity Analysis.**

To date, nineteen fully interpreted and wireframed sections have been identified and are being assembled into a cohesive and robust 3D Geological Model. These sections are presented here and are highlighted on Poster 1 at the southern end of the DMQ project area. Faults are tagged by their initiation event, and unsurprisingly, suffer reactivation in subsequent deformation events. Lithostratigraphic horizons that represent timeslices outlined in the DMQ updated 2000 NWQMP T+ Chart are tracked throughout the fault architecture and will also be essential in targeting Cu-Au-Mo systems at depth in the belt.

Prospectivity analysis will be undertaken when HiSeis granite geometries are resolved from geophysical inversion modelling that is ongoing in the current work. Modelling granite geometries are expected to be significantly different to those in current interpretations and will be crucial in targeting ISAR Cu-Au-Mo systems at depth throughout the belt.