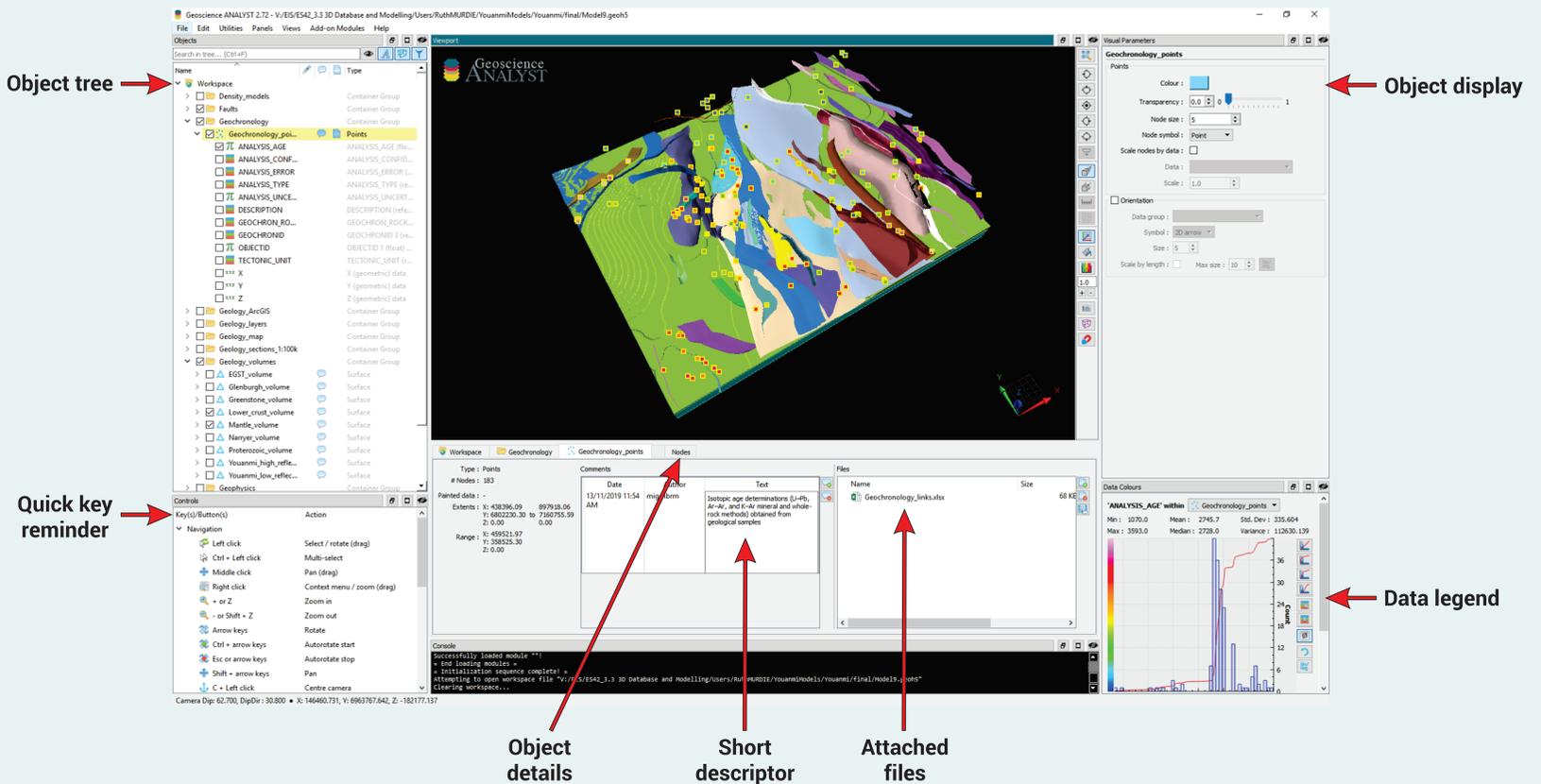


MURCHISON 3D GEOMODEL

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Geoscience Analyst project free viewer



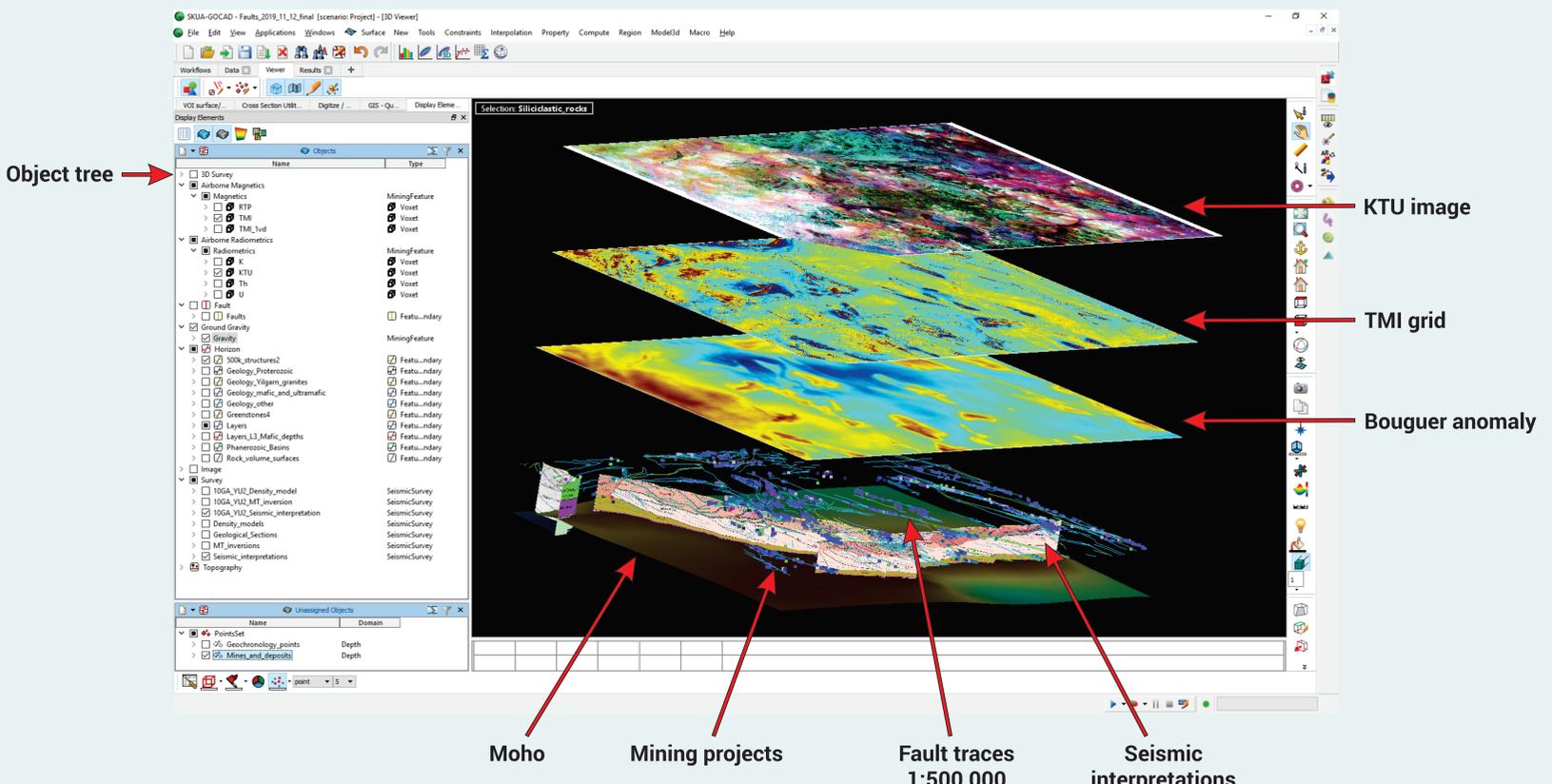
The 2019 Murchison 3D model covers highly mineralized granite–greenstone domains in the northwestern part of the Yilgarn Craton. The model includes the northwestern Youanmi Terrane, the Narryer Terrane and their boundaries with the Capricorn Orogen, and the northwestern part of the Eastern Goldfields Superterrane. The aim is to provide fundamental constraints on the first-order, 3D geometrical architecture of the network of faults in the region.

The visualization presented here is based on integrating deep reflection seismic surveys of 10GA-YU1, 2 and 3, 10GA-CP3 and 11GA-SC1 that were acquired in 2010 and 2011. It extrapolates away from the lines utilizing interpretations from aerial magnetic surveys, ground gravity surveys and the mapping campaigns of the Geological Survey of Western Australia (GSWA).

The high degree of symmetry in the fault network that can be observed in plan view is in striking contrast to the profoundly asymmetric crustal architecture present in all the seismic profiles. The dominantly east-dipping pervasive fabric is described in association with some studied faults and represents a craton-scale feature that is developed throughout the crust of the Yilgarn Craton. In contrast, west-dipping structures are restricted to upper crustal levels, systematically truncating the east-dipping structures and fabrics. The model provides some fundamental constraints for the development of a kinematic model for the synorogenic fault network of the Yilgarn Craton. This is particularly applicable when considering the resource potential of the area and the mineral system concept.

Download from: <https://dasc.dmp.wa.gov.au/dasc/>

GOCAD project and objects



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