

Old rocks, new ages: data release of SHRIMP geochronology of the South Nicholson region, NT and QLD

Geoscience Australia, as part of the Federal Government's Exploring for the Future (EFTF) program, has recently completed a comprehensive geochronology investigation of the South Nicholson region. The South Nicholson region, located in north-eastern Northern Territory and western Queensland, until recently, represented one of the least understood regions in northern Australia.

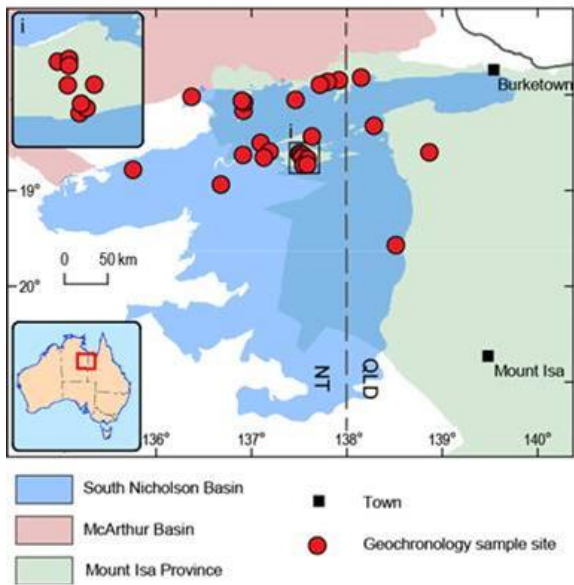
These geochronology data, conducted in concert with a number of other EFTF [geochemical](#) and [geophysical](#) acquisition programs across northern Australia, and in collaboration with the Geological Survey of Queensland and the Northern Territory Geological Survey, will place important constraints on the geological evolution of this poorly understood region. Over 40 outcrop and drill hole samples have been analysed, using Geoscience Australia's '[time machine](#)', the Sensitive High Resolution Ion MicroProbe, or SHRIMP.

Download the data and reports

The data are now available through Geoscience Australia's [geochronology delivery system](#), and include two Geoscience Australia reports, which outline key findings of the geochronology program.

- [New SHRIMP U–Pb zircon ages from the South Nicholson Basin, Mount Isa Province and Georgina Basin, Northern Territory and Queensland](#)
- [New SHRIMP U-Pb zircon ages from the South Nicholson and Carrara Range regions, Northern Territory](#)

The geochronology datasets facilitate improved geological interpretation of the recently acquired [EFTF South Nicholson reflection seismic data](#) and provides a comprehensive revision of stratigraphic correlations with the adjacent, and highly prospective, Mount Isa region (QLD) and McArthur Basin (NT), where petroleum and base-metal potential is well established. The analysis provides an improved understanding of the prospectivity in the South Nicholson region, stimulating future 'greenfield' targeted resource exploration activities.



Map: Location of SHRIMP geochronology samples across the South Nicholson region collected as part of the Exploring for the Future program.