

# *Resourcing the Territory* – future priorities supporting the Territory's economic revival



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# Resourcing the Territory program

## RESOURCING THE TERRITORY

- \$9.5 million annual ongoing *Resourcing the Territory* program is largest program ever funded by the NT Govt to support resources exploration in the Territory.
- Provides **pre-competitive geoscience, investment attraction and exploration stimulus programs** designed to increase exploration activity, drive success rates, and open up new areas of the Territory for exploration.
- It aims to make the Territory a **preferred destination** for exploration investment and supports local businesses and communities that rely on the exploration and mining sector.
- focus on **partnerships and collaborations** with industry, researchers and other Government geoscience agencies to support industry innovation and deliver integrated and contemporary geoscience data and interpretations that are designed to open up new areas for exploration and underpin private sector exploration success.



# Resourcing the Territory program themes:

- Providing competitive grants to stimulate exploration success
- Underpinning resource potential through improved geophysical data
- Accelerating resource development in known mineral provinces
- Attracting and supporting resource development in frontier areas
- Applying geoscience to support a low emissions future
- Modernising geoscience data to support a digitally enabled industry
- Promoting the Territory's prospectivity and investment potential.

## RESOURCING THE TERRITORY





# Providing competitive grants to stimulate exploration success

## RESOURCING THE TERRITORY

- Up to **\$3 million** available **annually** for eligible exploration programs under the Resourcing the Territory program
- Co-funding selected projects that address geoscientific knowledge gaps, advance exploration activity, and support the discovery and development of resources in the Territory.
- Round 16 (2023/24) currently open for applications. Closing date **May 2<sup>nd</sup> 2023**
- **[www.grantsnt.gov.au](http://www.grantsnt.gov.au)**

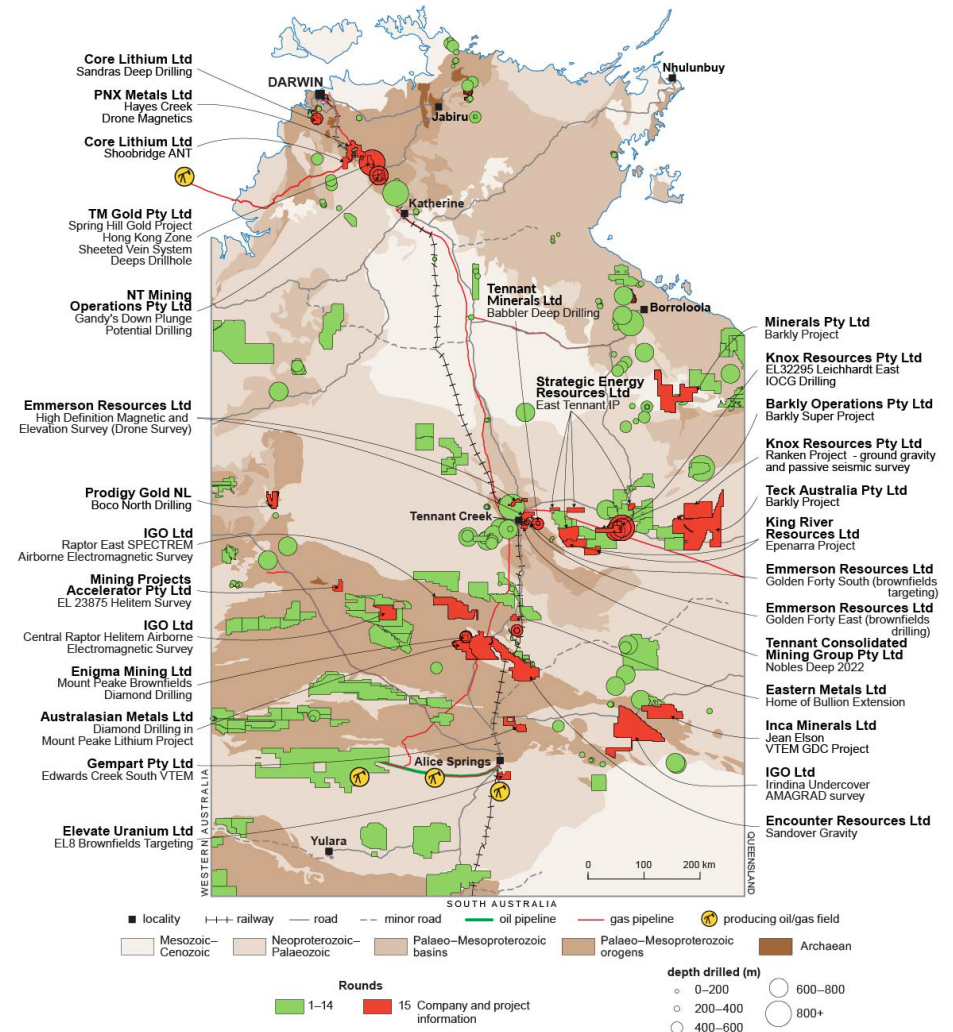


Photo courtesy of PNX

# Providing competitive grants to stimulate exploration success

- Co-funding up to ½ direct costs capped at:
  - \$200 000 for greenfields single deep diamond hole
  - \$150 000 for greenfields/brownfields multi-hole diamond program & regional scale reflection seismic surveys
  - \$100 000 for greenfields non diamond drilling, regional scale geophysics & innovative targeting programs
- Territory Supplier Incentive
  - Additional \$10 000 available for programs that engage NT enterprises
- Data publicly available 6 months after project completion

## RESOURCING THE TERRITORY

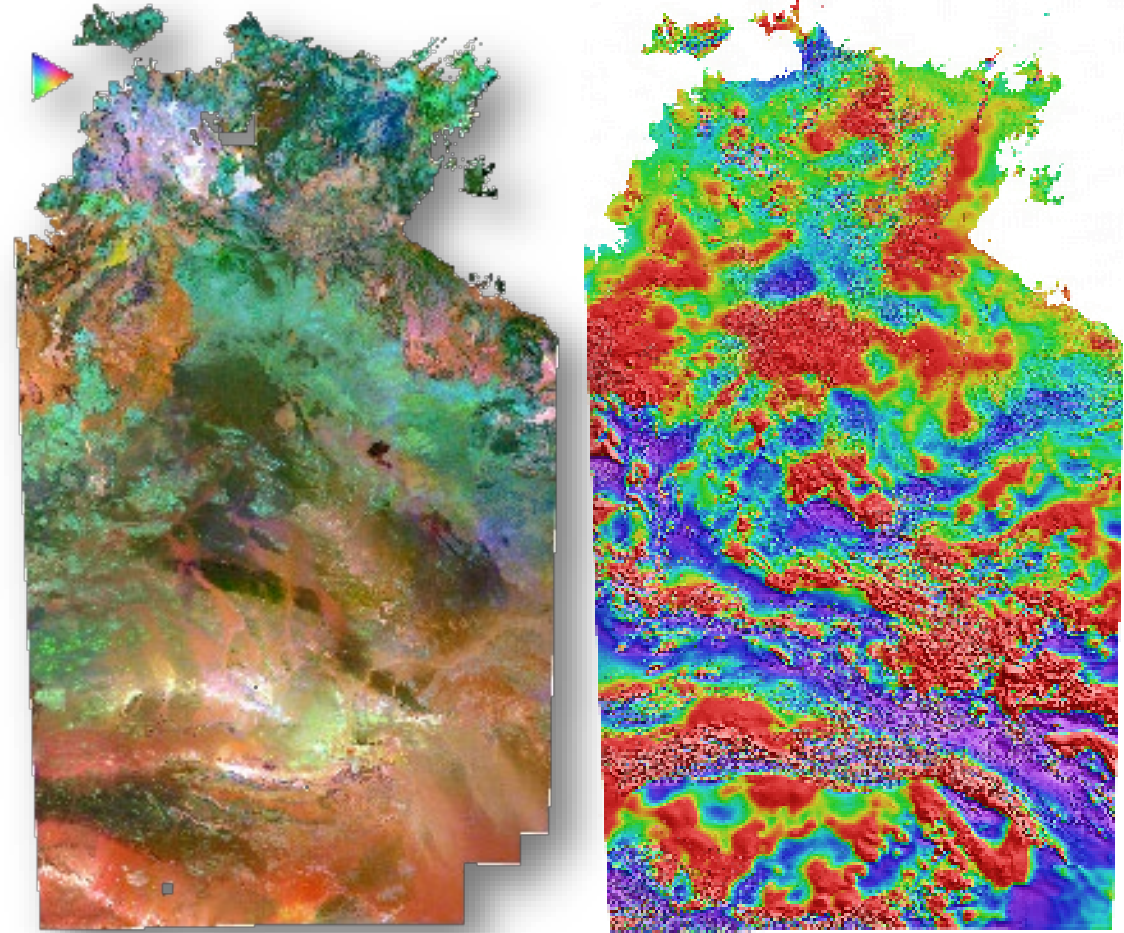




# Underpinning exploration success through enhanced geophysics

## RESOURCING THE TERRITORY

- Review of existing regional-scale govt-acquired **aeromagnetic and radiometric** data to modernise under FAIR principles.
- Seek infill opportunities within Geoscience Australia's Exploring For The Future (EFTF) acquisition programs (AEM, AusARRAY, AusLAMP)
- Expanded exploration grants program supporting acquisition of higher resolution regional-scale geophysics or innovative camp- to prospect-scale geophysics.

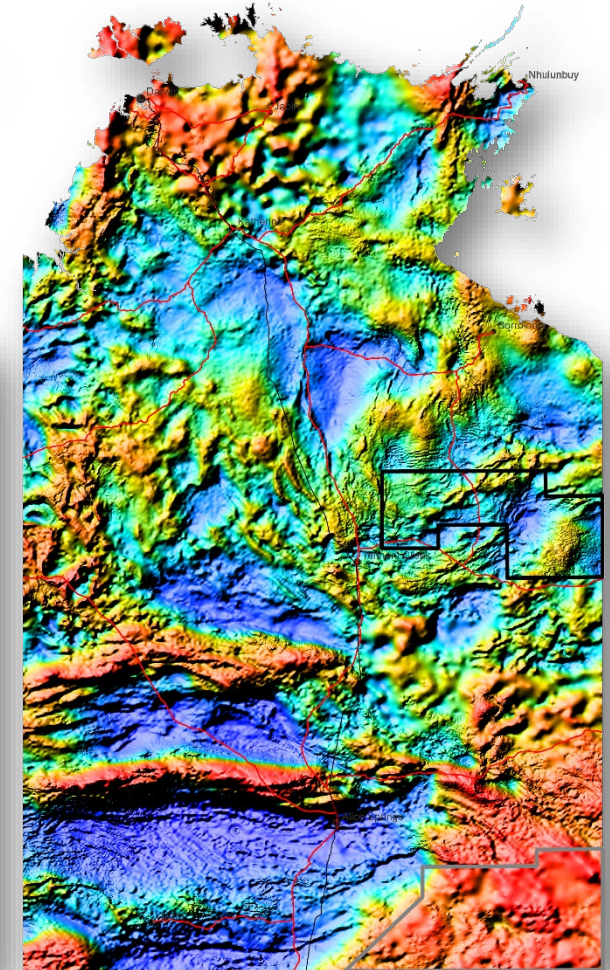
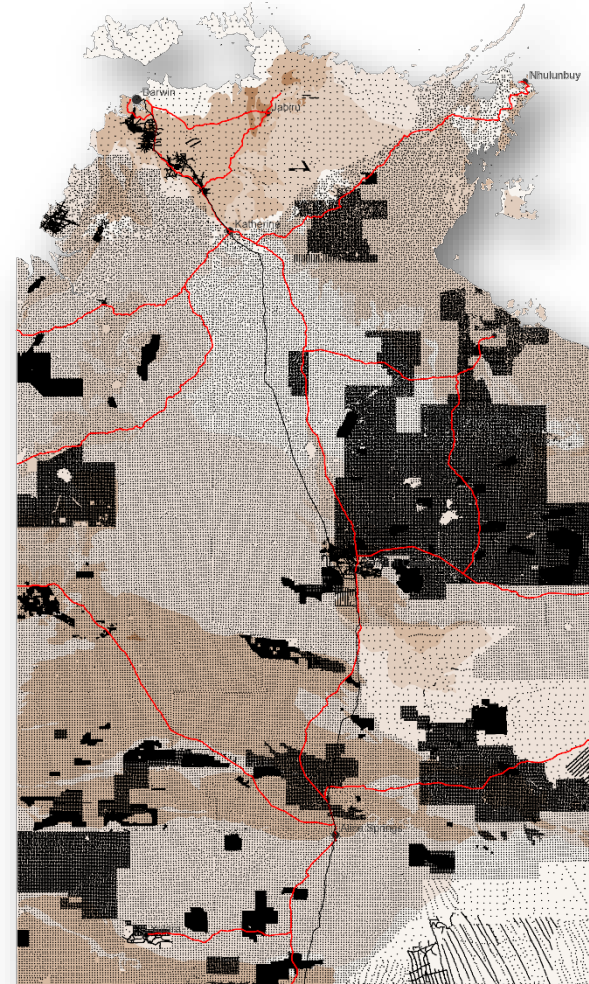




# Underpinning exploration success through enhanced geophysics

## RESOURCING THE TERRITORY

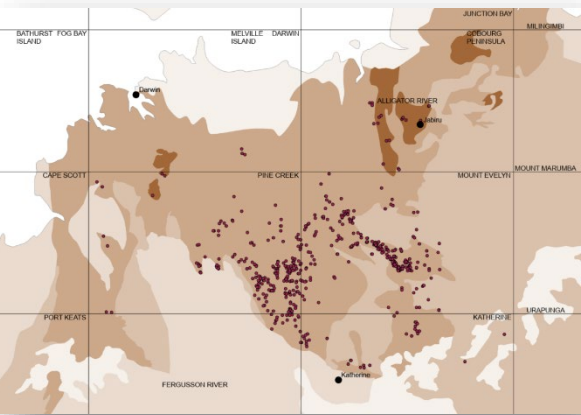
- Campaign **gravity** acquisition to improve the resolution of gravity stations to  $\leq 4$  km spacing.
- Key areas currently at 11 km ground spacing
  - Pedirka Gravity Survey: improve to 2 km and 4 km spacing, acquisition to commence 2023
  - Pine Creek Orogen: improve to 2 km and 4 km spacing, acquisition to commence 2024 - seeking industry infill interest



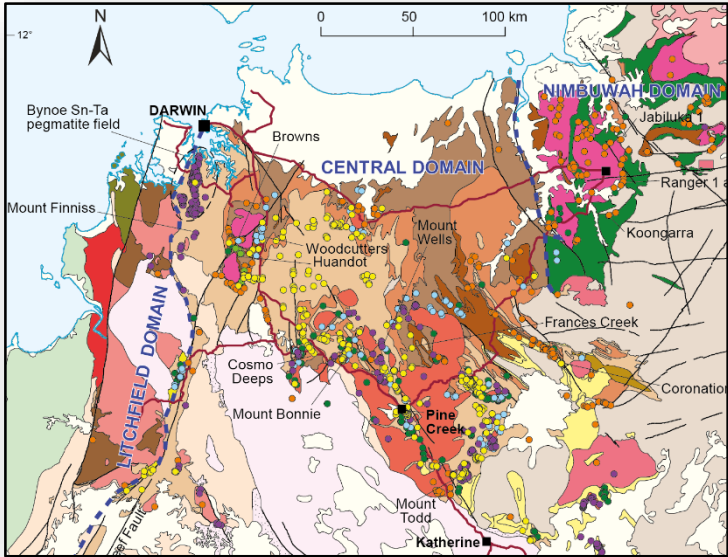


# Accelerating resource development in known mineral provinces

## Pine Creek Orogen



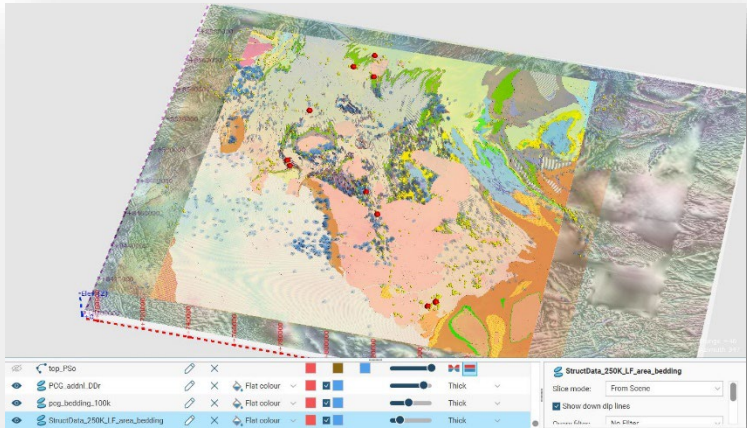
Multi-element analysis of 725 legacy GA geochem powders from representative (meta)igneous rocks  
GA



Systematic stratigraphic type section characterisation and description



Assessing mine waste at selected historical gold mines for secondary prospectivity in critical minerals including REEs  
Univ Qld

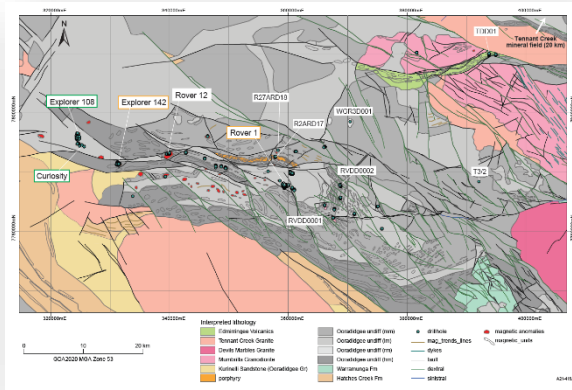


2D & 3D model of the Burnside area within the Central Domain - structural, stratigraphic and mineral system relationships  
Univ Qld

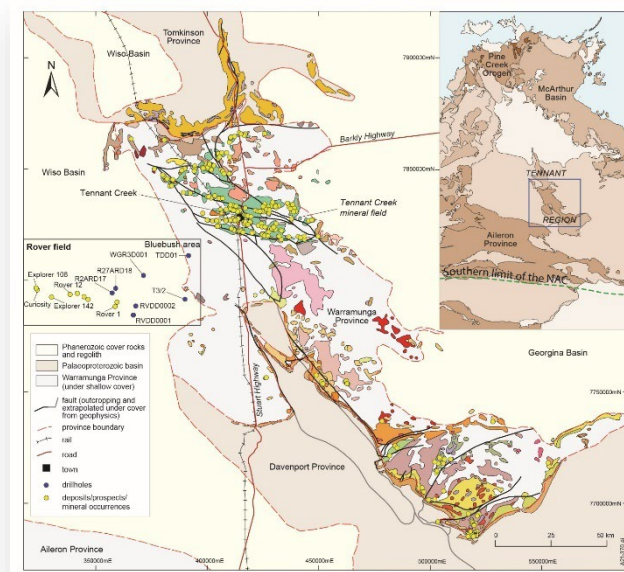
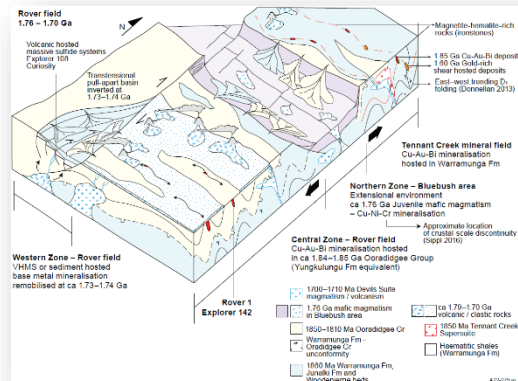


# Accelerating resource development in known mineral provinces

## Tennant area (Warramunga Province)

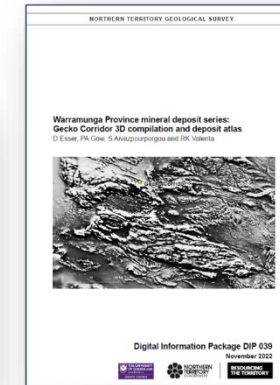


## Geology and mineral systems of the Rover field (NTGS)

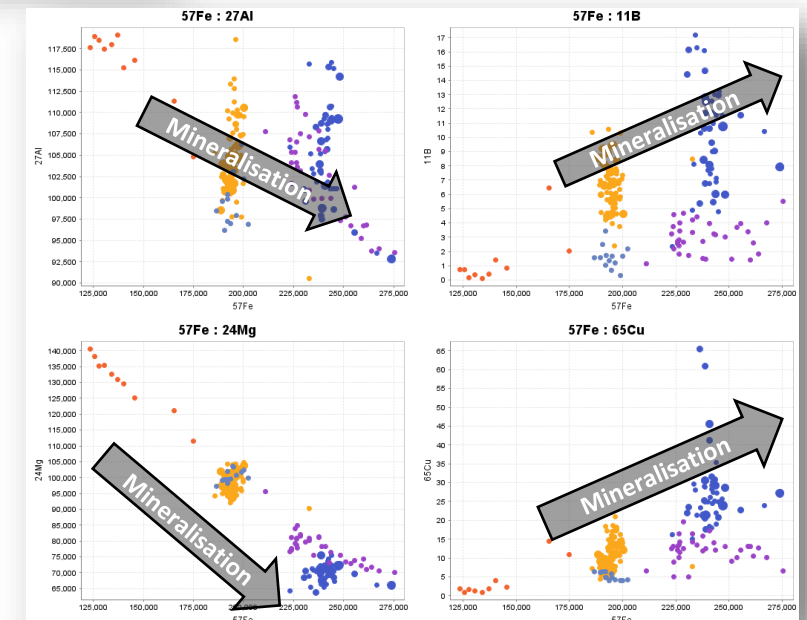


Analyse mineral chemistry and event chronology across the Tennant Creek mineral field and East Tennant area to fingerprint productive mineralising events (Steadman et al 2023) Univ Tas

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Mineral deposit atlases and 3D compilations for Juno, Northern Star, Nobles Nob and Gecko Corridor Univ Qld

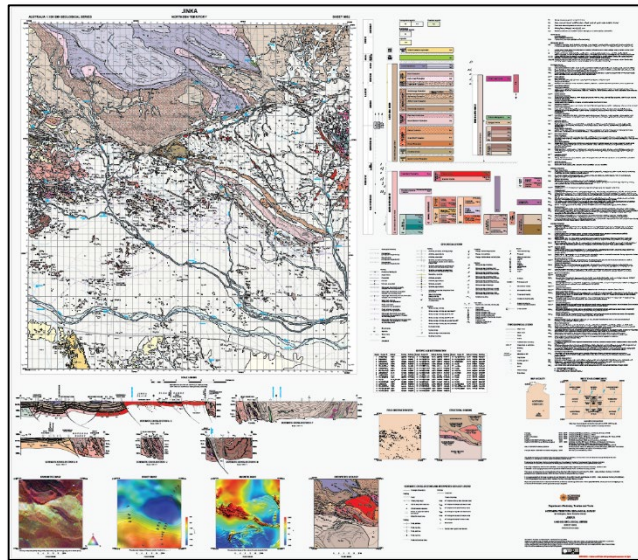




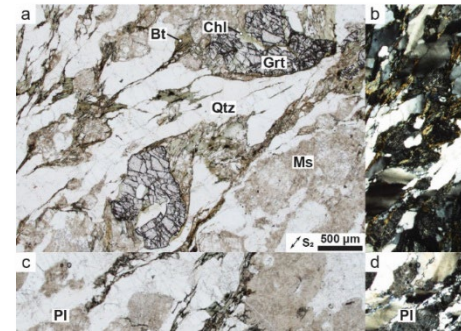
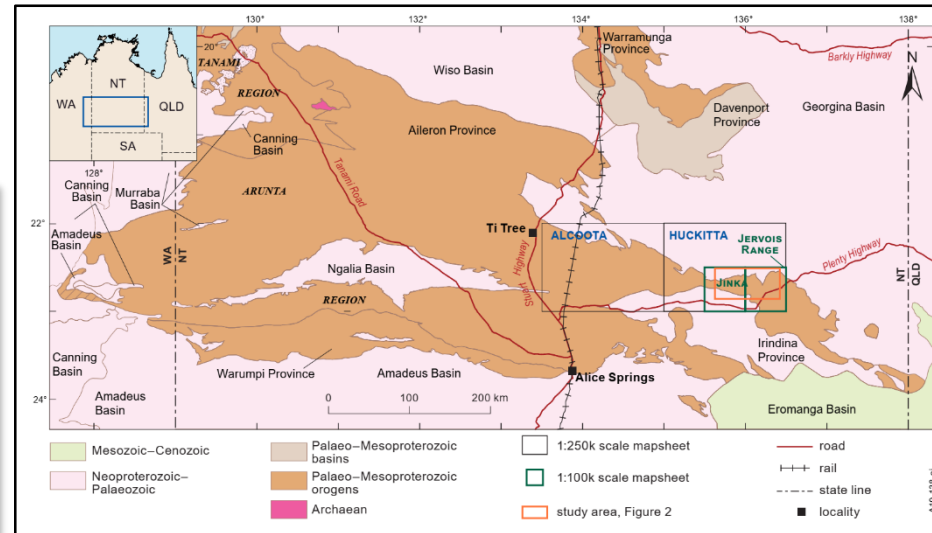
# Attracting and supporting resource development in frontier areas

## Aileron/Irindina provinces

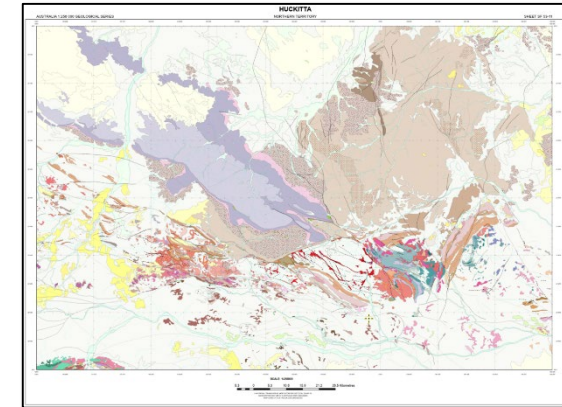
- Geological framework studies within polymetallic terrains



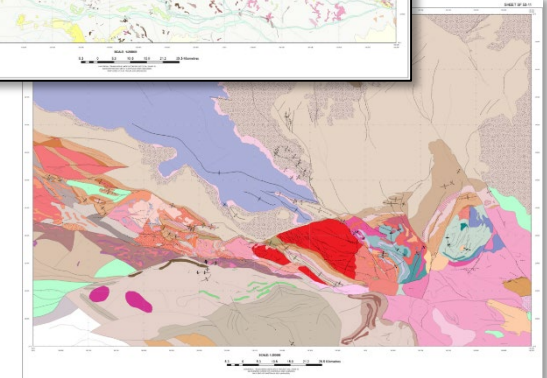
Jinka 1:100k map published 2022



# RESOURCING THE TERRITORY



Huckitta 1:250k map to be published 2023



Metamorphic studies (Limbla 100k and Alcoota 250k to be published 2023)





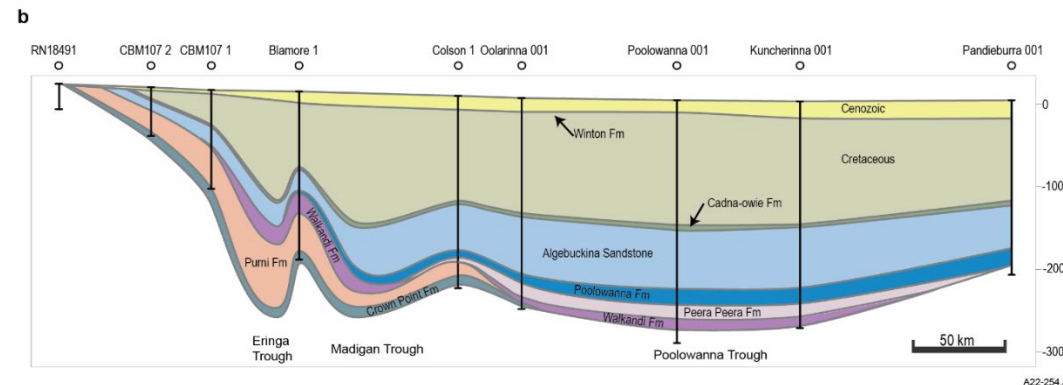
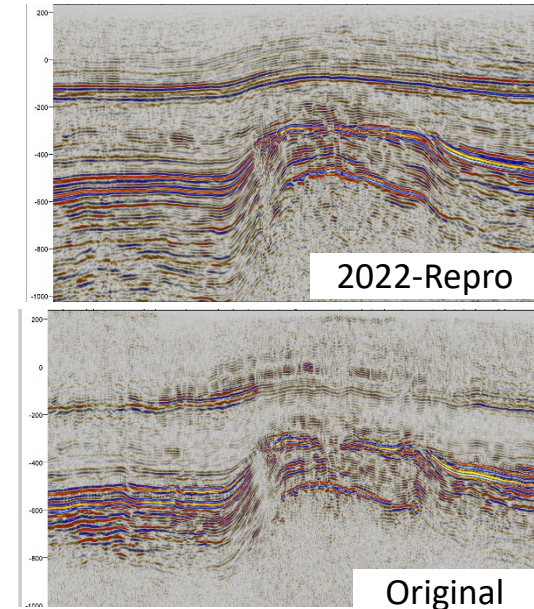
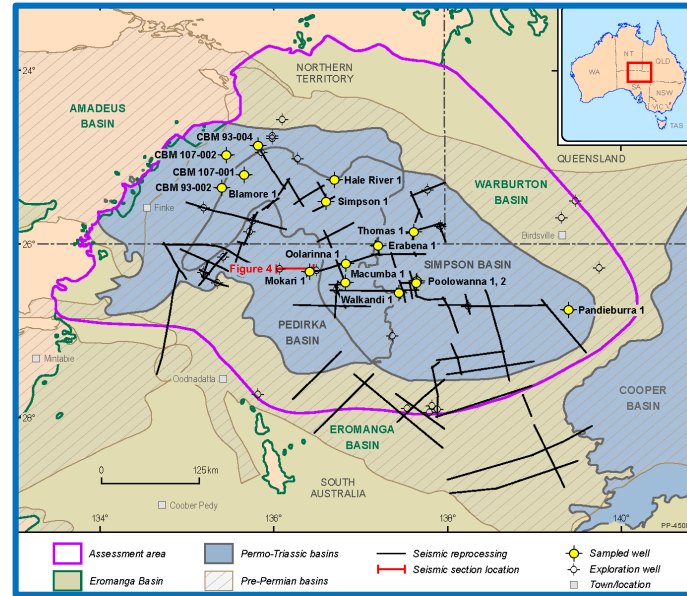


# Attracting and supporting resource development in frontier areas

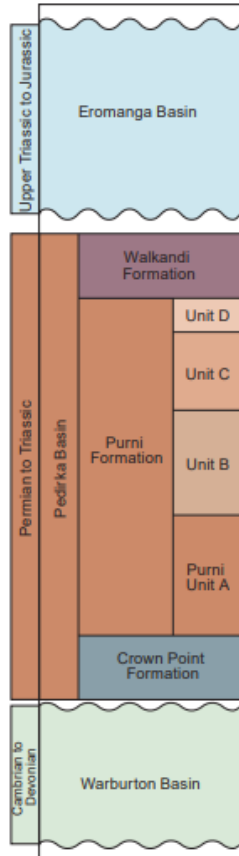
## RESOURCING THE TERRITORY

### Warburton, Pedirka, Eromanga basins

- collaboration with Geoscience Australia and SA Australia Dept for Mines and Energy
- Improved understanding of framework and resource potential
- reprocessed seismic and interpretation, stratigraphic correlation through geochronology, petroleum systems analysis



Doig, Jarrett and Verdel (2022), CABS



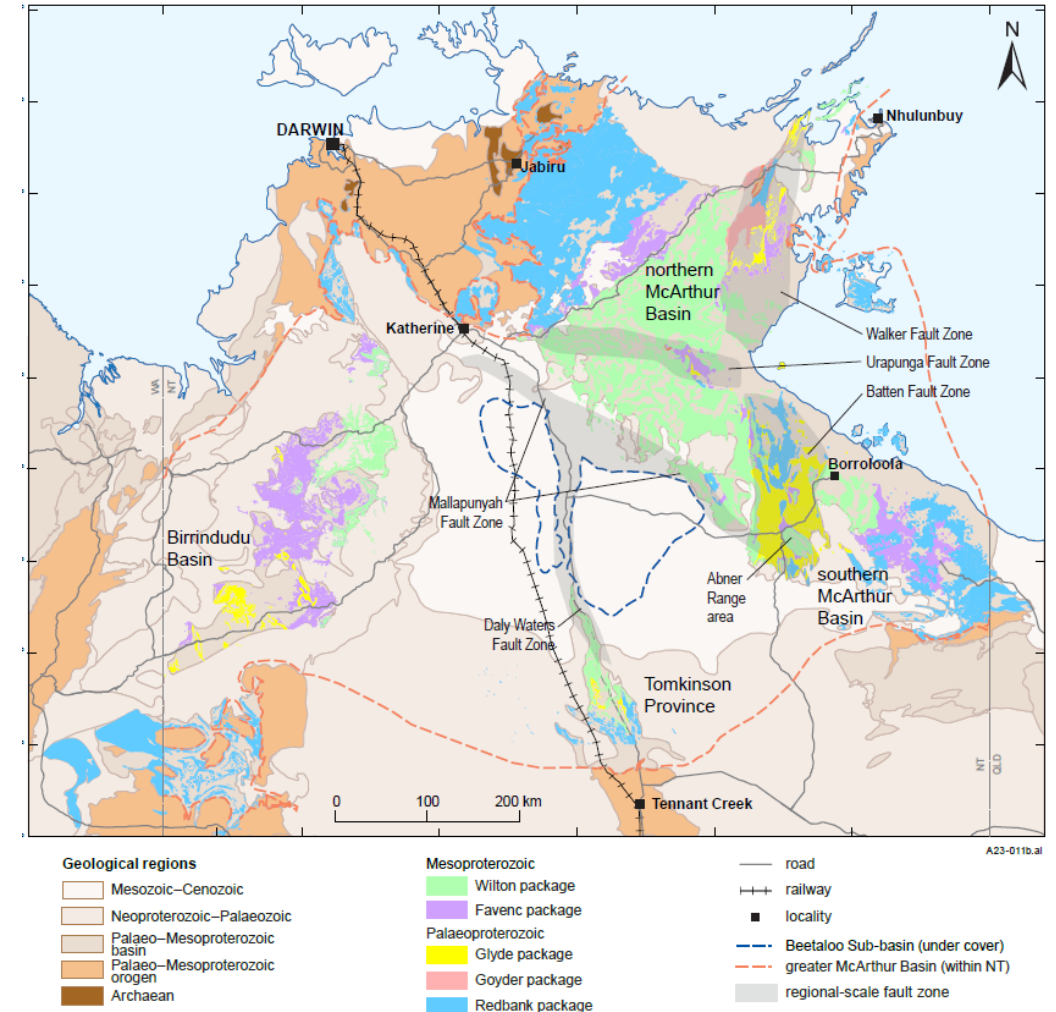


# Attracting and supporting resource development in frontier areas

## RESOURCING THE TERRITORY

### greater McArthur Basin

- Stratigraphic characterisation and correlations of the Paleoproterozoic Glyde package (NTGS)
- Key drill holes in the Birrindudu Basin to build consistent base line description and interpretation
  - Systematic descriptive logging of sedimentary facies, pXRF, sonic and gamma logging (CSIRO)
  - Geomechanical analysis (GA)
  - Geochronology, isotopic proxy analysis and organic chemistry (NTGS, Uni Adelaide, GA)

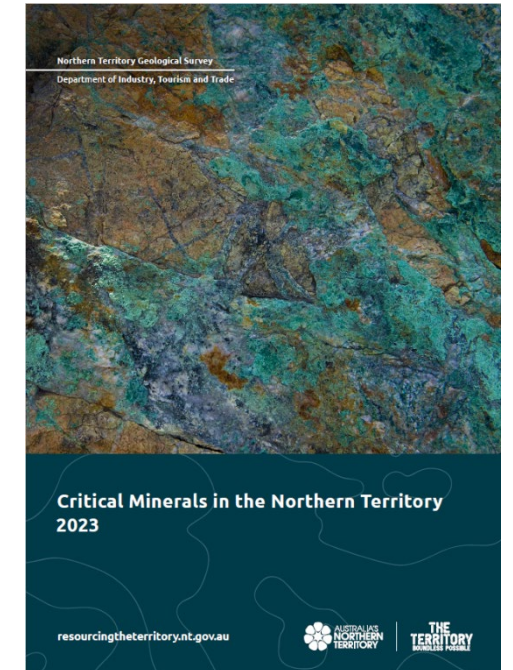
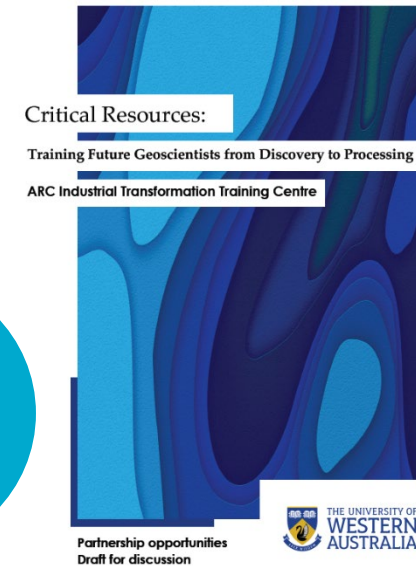




# Applying geoscience to support a low emissions future

- Collaborative research projects to improve our understanding of s key critical minerals, including understanding of LCT pegmatites in the Pine Creek Orogen, Aileron and Irindina provinces; cobalt and bismuth rich systems in the Tennant region, and potentially rare earth elements in phosphorites in the Georgina Basin.
- NTGS recently released it's first guide to [Critical Minerals in the Northern Territory](#).
- CSIRO is being commissioned to undertake a desktop screening study of key Northern Territory onshore basins to assess for CO<sub>2</sub>, H<sub>2</sub> and compressed air storage capacity.
- The expanded [exploration grants](#) program supports the re-analysis of existing samples for untested commodities such as critical minerals.

## RESOURCING THE TERRITORY





# Promoting the Territory's prospectivity and investment potential

- NTGS hosts the Territory's premier technical exploration conference, [AGES](#) held every April in the Alice Springs.
- NTGS promotes the [mineral](#) and [energy](#) potential of the Territory with up-to-date [news](#), [factsheets](#), [data and publications](#) and [industry activity](#).
- NTGS provides high-quality geoscience data and publications free-of-charge to explorers through [GEMIS](#) and [STRIKE](#).

## RESOURCING THE TERRITORY

The screenshot displays the 'RESOURCING THE TERRITORY' website. The top navigation bar includes links for TOOLBOX, CONTACTS, FEEDBACK, and a search bar. Below this, a secondary menu lists various categories: NT Geological Survey, About RTT, Exploration grants, Energy, Minerals, Data and Publications, and News and Events. A featured article titled 'Data and publications released under Resourcing the Territory' is highlighted, with a 'Find out more' button. Below the article, a statistics section presents five key metrics with corresponding icons:

Icon	Value	Description
Dollar sign in a circle	\$4.86 billion	Value of NT mineral production 2021-22
Truck	\$199 million	NT mineral exploration expenditure 2022
Oil rig	8,900	Onshore gas contingent resources 2C (BCF)
Hard hat	2,498	Direct jobs in NT mining sector
Checklist	19	Mining projects in approvals process