

RESOURCING THE TERRITORY



Stimulating exploration through new geoscience under the Resourcing the Territory initiative

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4 year (2018-2022), \$26 million NT Govt initiative to grow the exploration sector

- Supporting industry innovation through grants for greenfields exploration
- Upgrading the Territory's coverage of geophysical data
- Unlocking the resource potential of the Barkly and Gulf regions
- Stimulating greenfields exploration in central Australia
- Promoting the Territory's resource potential and investment opportunities; and
- Making exploration and geoscience data more accessible

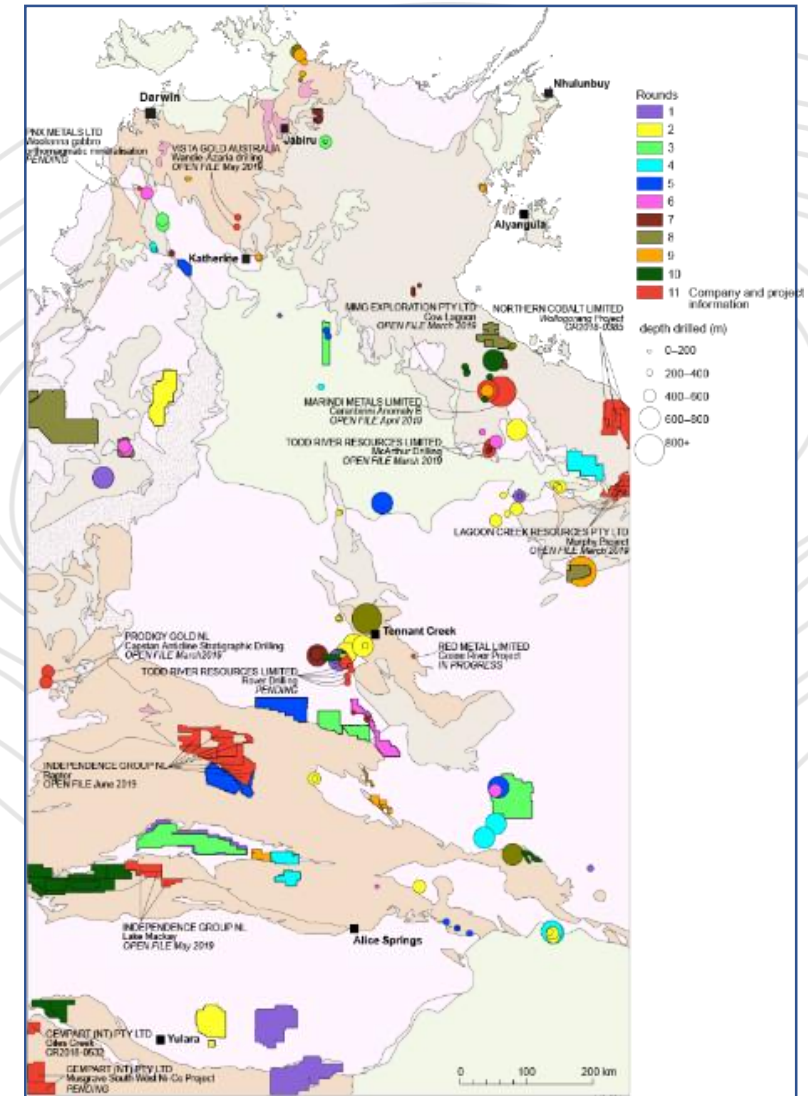


Tanami airborne survey: Photo courtesy of Prodigy Gold

Supporting industry innovation through grants for greenfields exploration

Geophysics and Drilling Collaborations (GDC) program

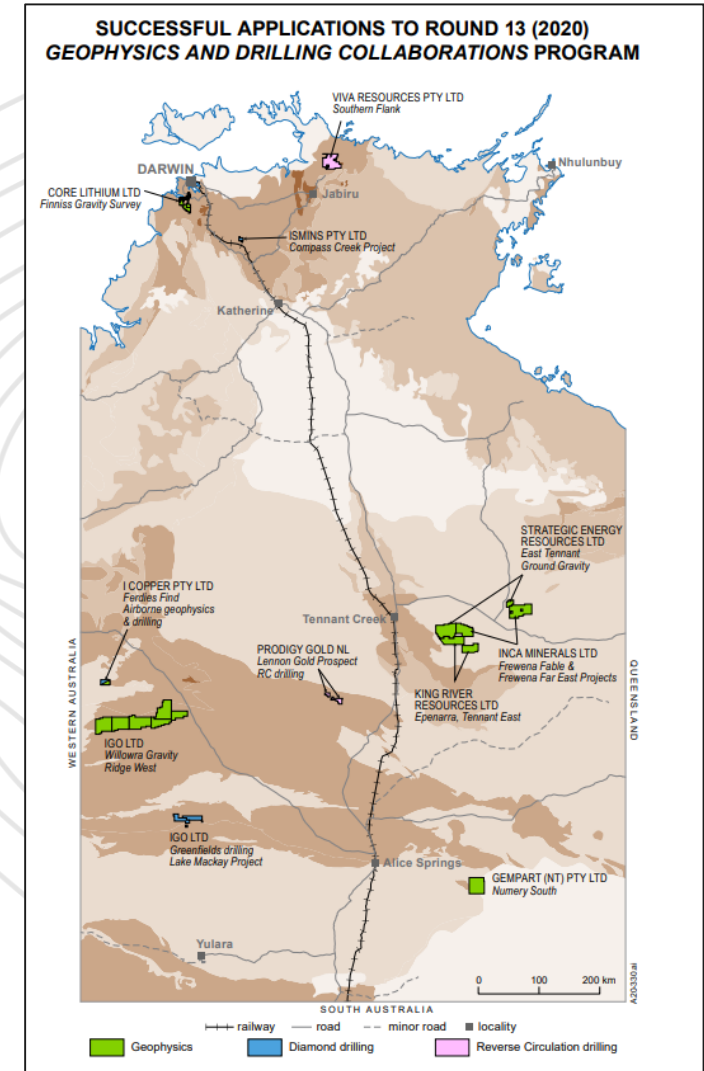
- Co-funding innovative industry geoscience programs to encourage greenfields exploration across the Northern Territory
- Provides co-funding for half of the eligible direct program costs capped at:
 - \$125,000 for selected exploration diamond drilling programs
 - \$100,000 for selected exploration RC drilling and geophysical acquisition programs
- Information gained from the successful projects open file and released to the public 6 months after field work completion to encourage further exploration
- <https://resourcingtheterritory.nt.gov.au/about/gdc>



Coverage of GDC co-funded drilling and geophysical data

Supporting industry innovation through grants for greenfields exploration

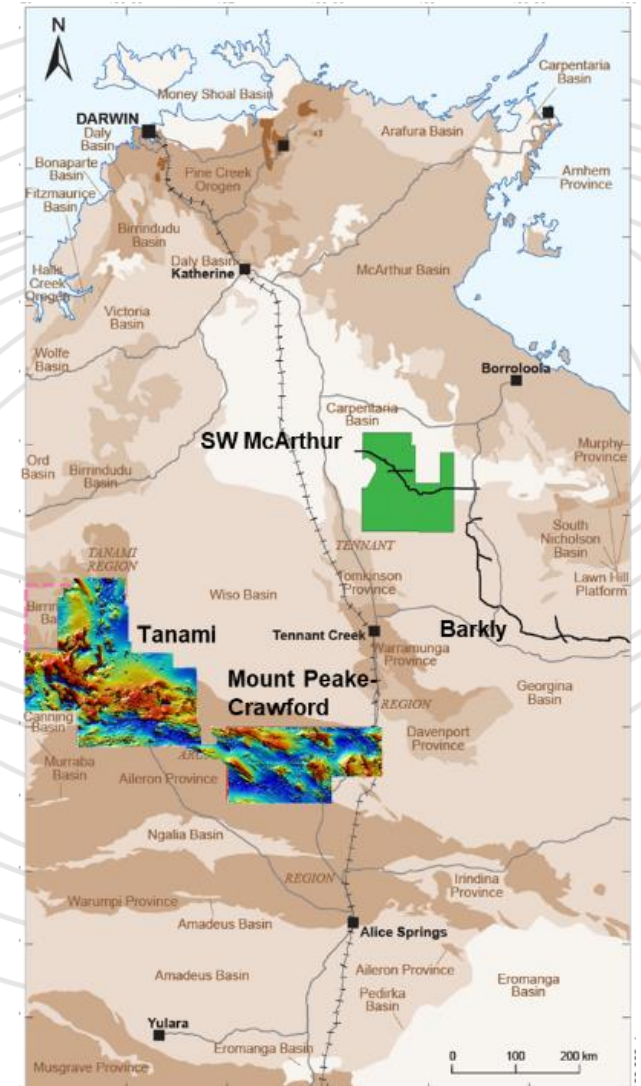
- The Territory Supplier Incentive offers an additional \$10,000 of co-funding per project to engage NT enterprises to complete works in the NT.
- Successful applications under Rnd 13 of co-funding in 2020:
 - 3 x diamond drilling
 - 2 x RC drilling
 - 7 x geophysical acquisition
- The co-funding is offered annually for each year of the Resourcing the Territory initiative – final funding round will be open to applications early 2021
- <https://resourcingtheterritory.nt.gov.au/about/gdc>



Upgrading the Territory's coverage of geophysical data

Targeted regional scale magnetic-radiometric or gravity data acquisition programs in prospective areas to improve data quality and density to modern standards

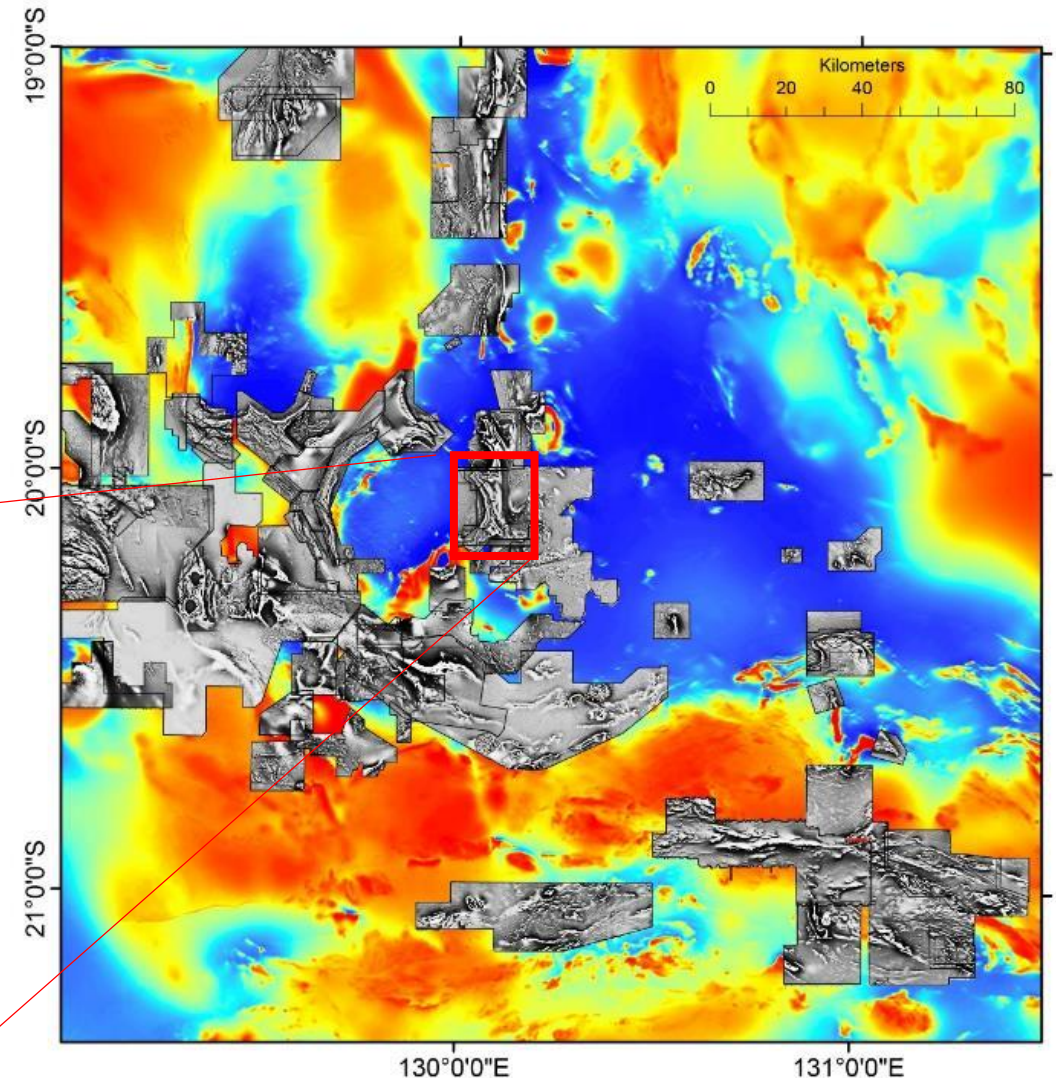
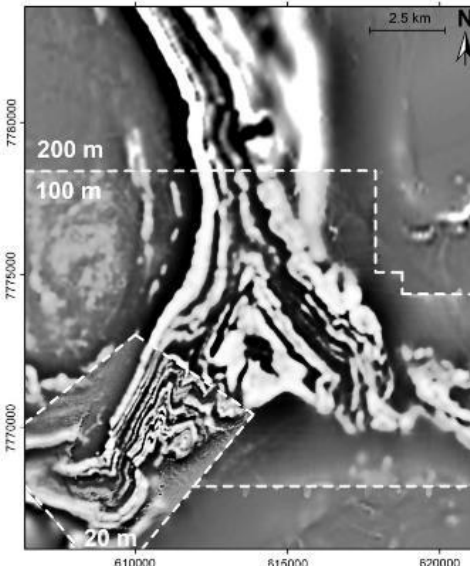
- [Tanami magnetic-radiometric survey](#) (100-200m spacing) – released 2019
- [Mount Peake Crawford airborne survey](#) (100-200m spacing) – released 2020
- [SW McArthur gravity survey](#) (extension to Geoscience Australia EFTF program; 2 km spacing) – released April 2020
- [Barkly seismic survey](#) (contribution to Geoscience Australia EFTF program; 820 km of 2D seismic) – released June 2020



Upgrading the Territory's coverage of geophysical data

CSIRO-NTGS collaboration in the Tanami

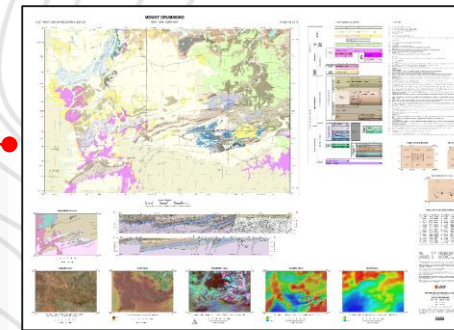
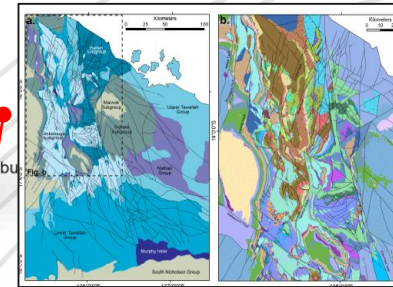
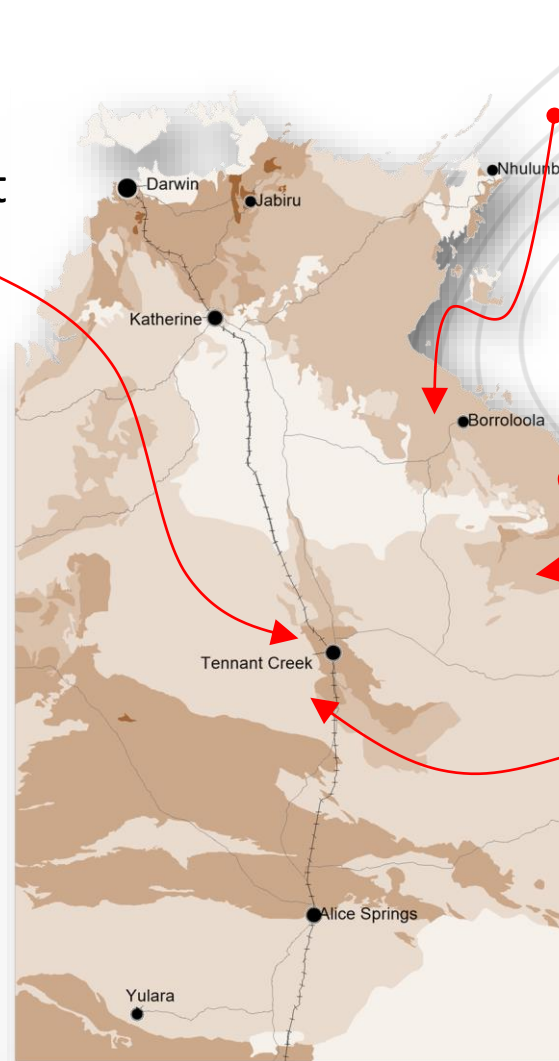
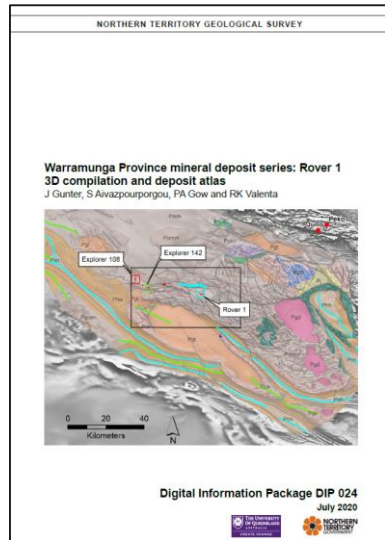
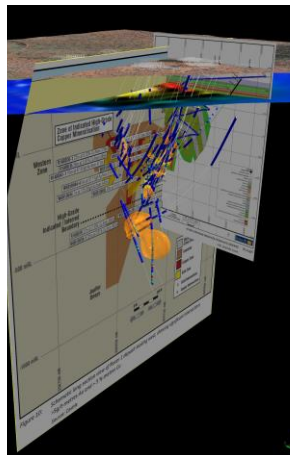
- Integration of new NTGS Tanami airborne survey and 72 industry surveys
- Lithostructural interpretation of geophysical data
- Final products to be delivered late 2020
- Interim release: AGES 2020 [Tanami Region: reprocessing, interpretation and modelling of newly acquired and legacy geophysical data \(Blaikie et al\)](#)



Unlocking the resource potential of the Barkly and Gulf regions

NTGS projects

- Commission a series of mineral deposit atlases and 3D compilations for key deposits in Tennant and Rover fields
- [Rover field and interp geology](#)
- [Rover 1](#)
- [Explorer 108 and Curiosity](#)
- [Explorer 142](#)
- Warrego
- White Devil
- Goanna



- Southern McArthur Basin solid geological interp and geophysical modelling (CSIRO collab)



- Mount Drummond 1:250k outcrop map
- Characterisation and mineral system study of the undercover Rover field (Geoscience Australia collab)

Unlocking the resource potential of the Barkly and Gulf regions

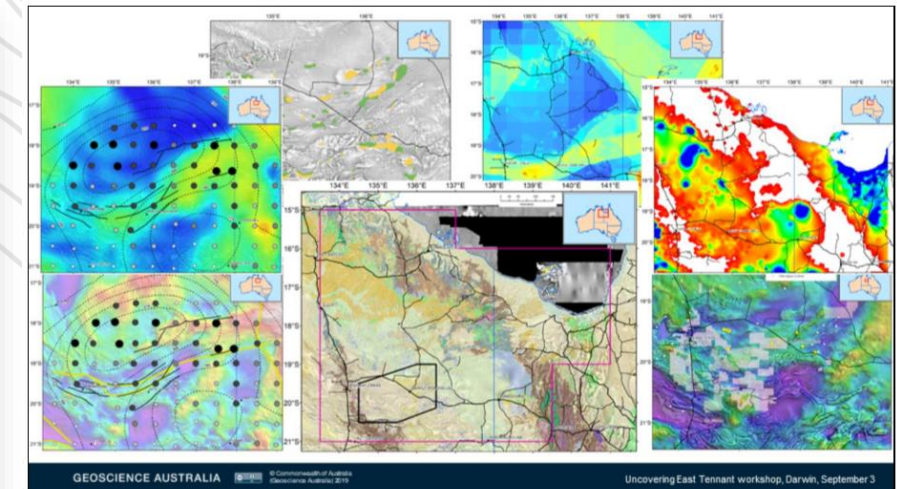
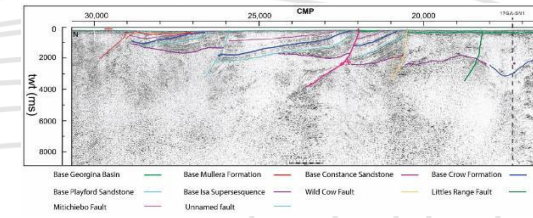
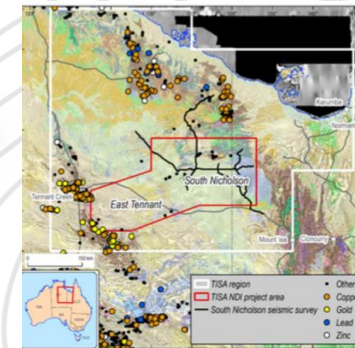
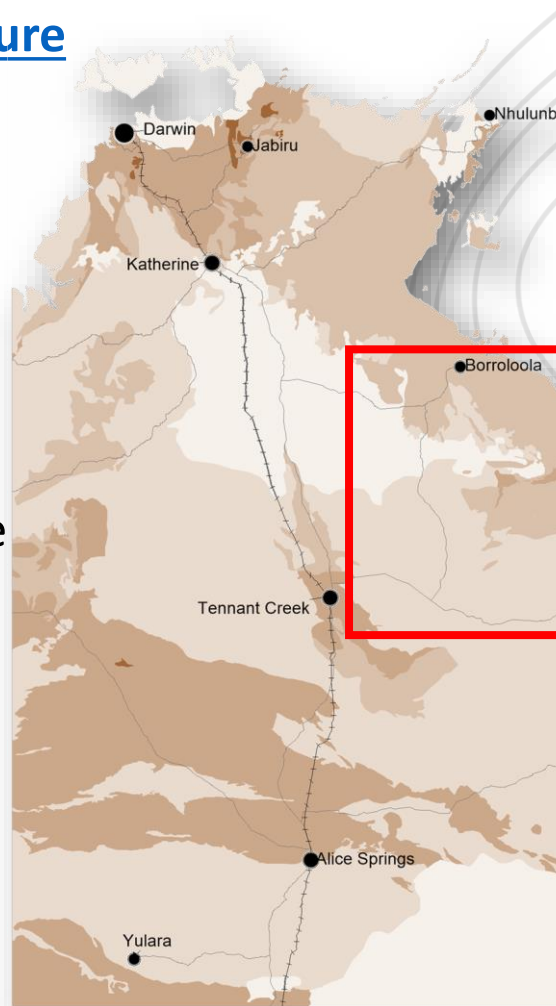
Geoscience Australia: Exploring for the Future



MinEx CRC National Drilling Initiative



- NTGS co-investing and collaborating in unprecedented level of new geoscience data at outcrop to lithospheric scale incl. gravity, seismic, MT, AEM, soil geochemistry, hydrogeochemistry, isotopic studies
- Integrated analysis and modelling of datasets leading to targeted stratigraphic drilling program

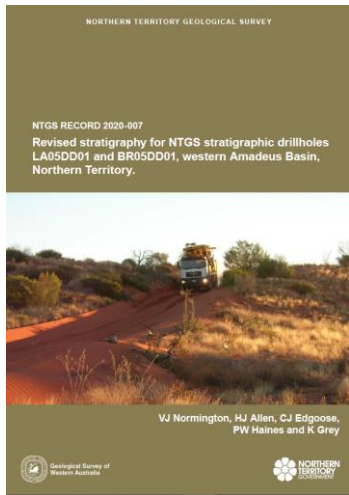


Stimulating greenfields exploration in central Australia

Amadeus Basin

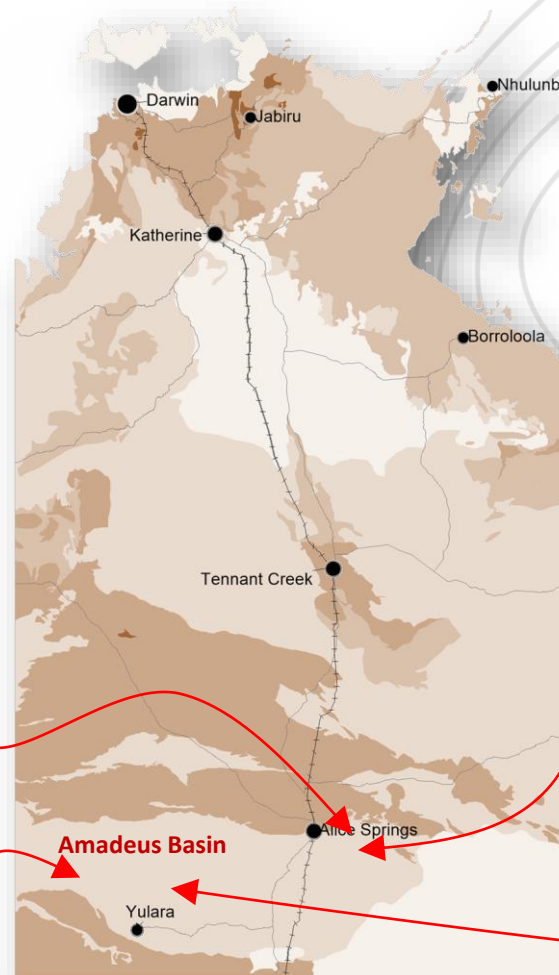
- Characterisation of the Neoproterozoic stratigraphy and consistent logging of key drillholes

[Revised stratigraphy of drillhole BL002, northeastern Amadeus Basin, Northern Territory \(Normington 2020\)](#)

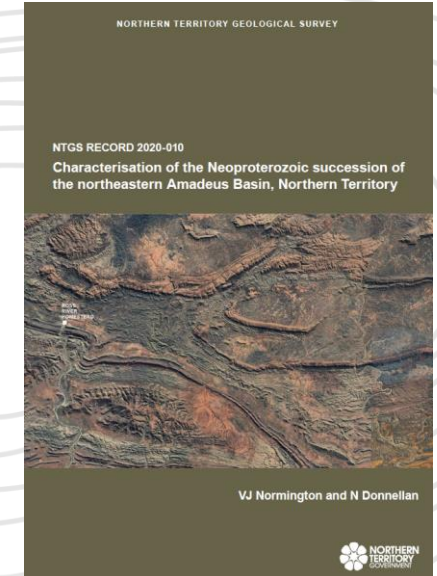


[Revised stratigraphy for NTGS stratigraphic drillholes LA05DD01 and BR05DD01, western Amadeus Basin, Northern Territory \(Normington et al 2020\)](#)

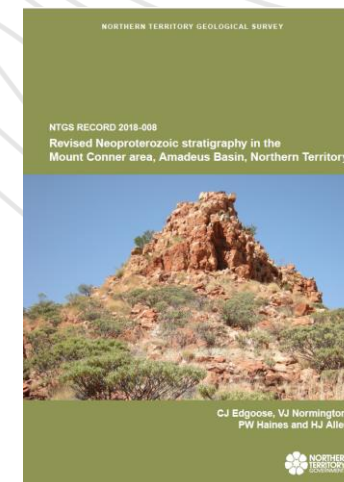
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[Characterisation of the Neoproterozoic succession of the northeastern Amadeus Basin, Northern Territory \(Normington and Donnellan 2020\)](#)



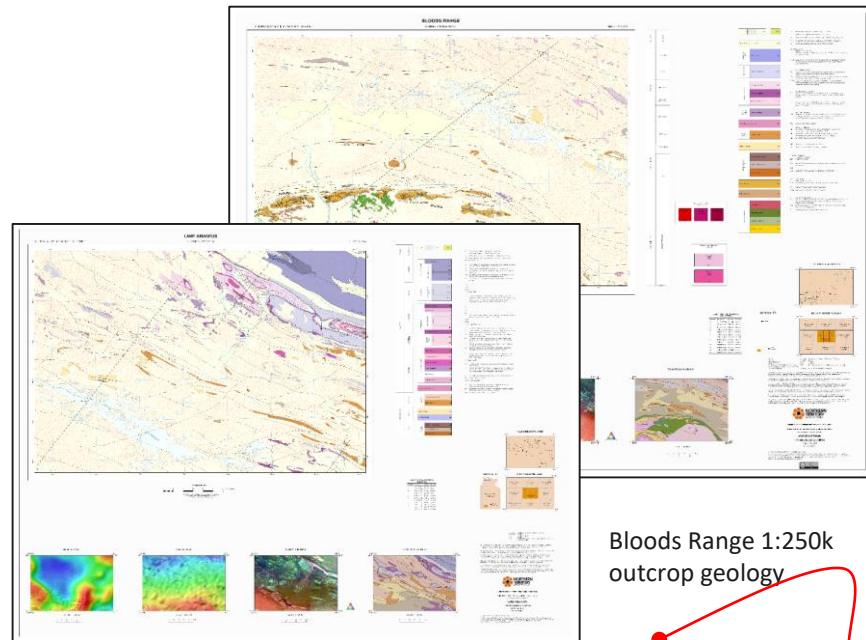
[Revised Neoproterozoic stratigraphy in the Mount Connor area, Amadeus Basin, Northern Territory \(Edgoose et al 2018\)](#)



Stimulating greenfields exploration in central Australia

Amadeus Basin

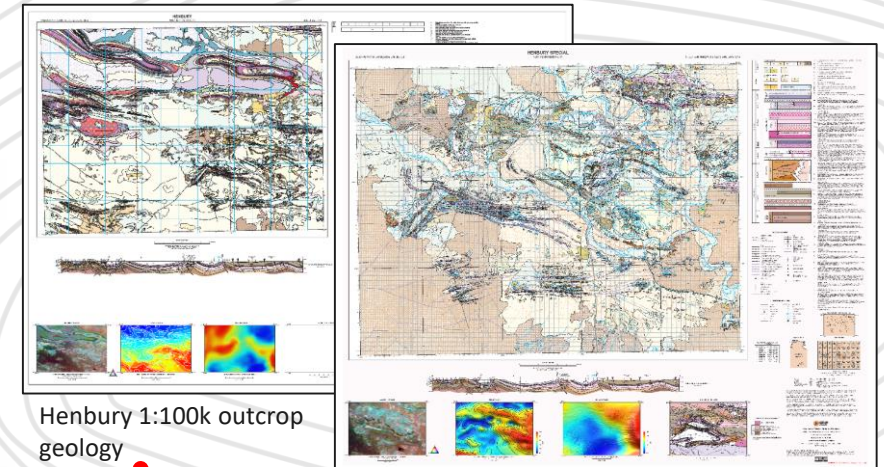
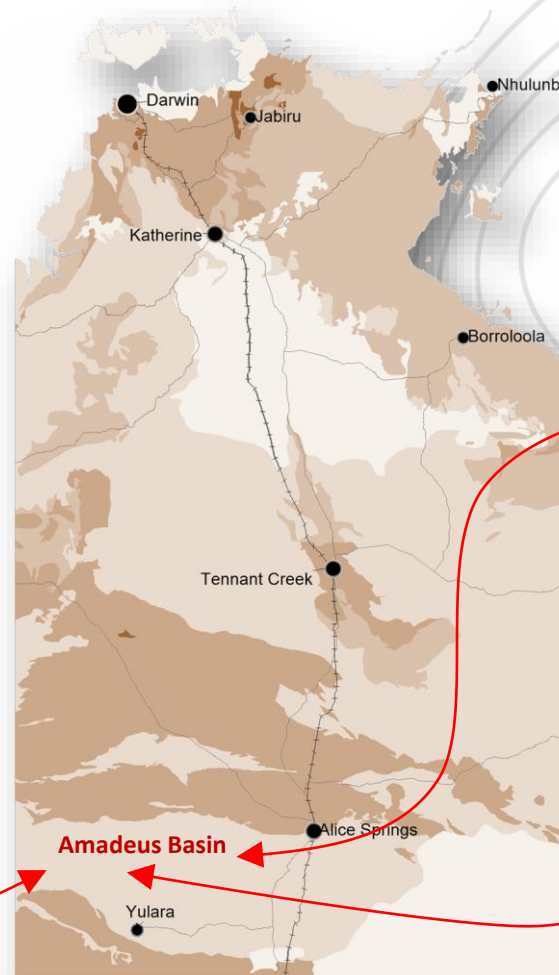
- Updated outcrop and interpreted geology maps (100k, 250k, 500k): seamless geology



Lake Amadeus 1:250k outcrop geology

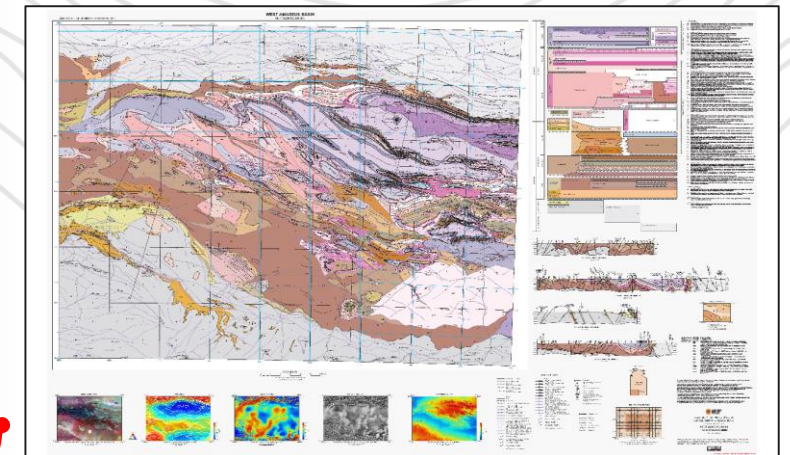
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Bloods Range 1:250k outcrop geology



Henbury 1:100k outcrop geology

Henbury 1:250k outcrop geology

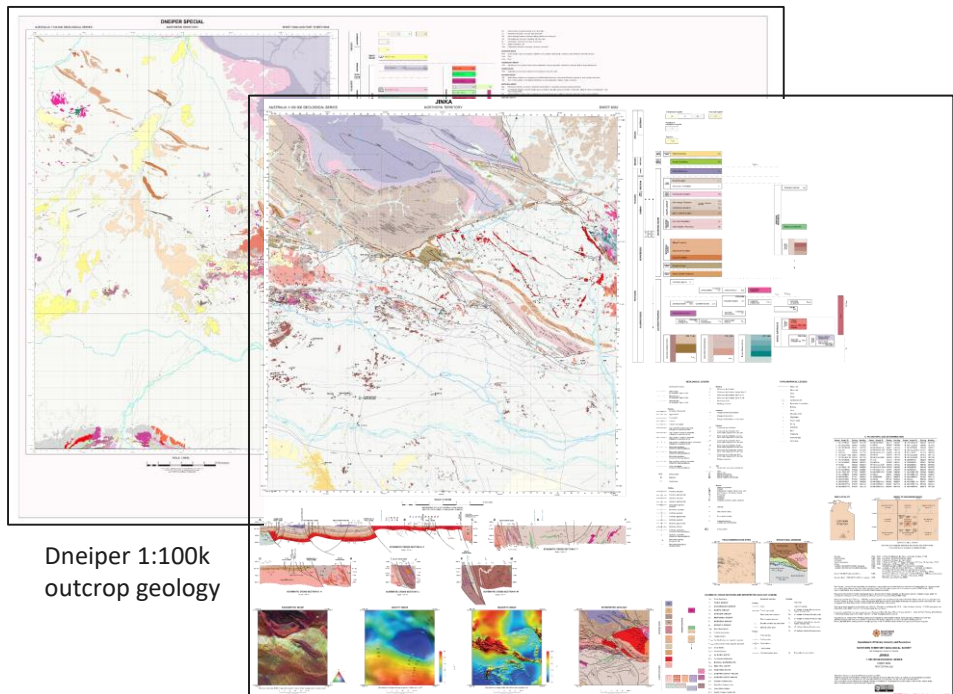


Western Amadeus Basin 1:500k Interpreted geology

Stimulating greenfields exploration in central Australia

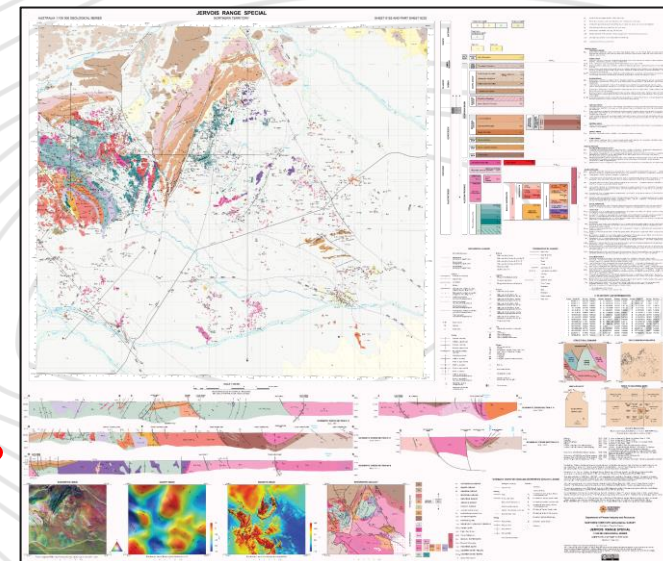
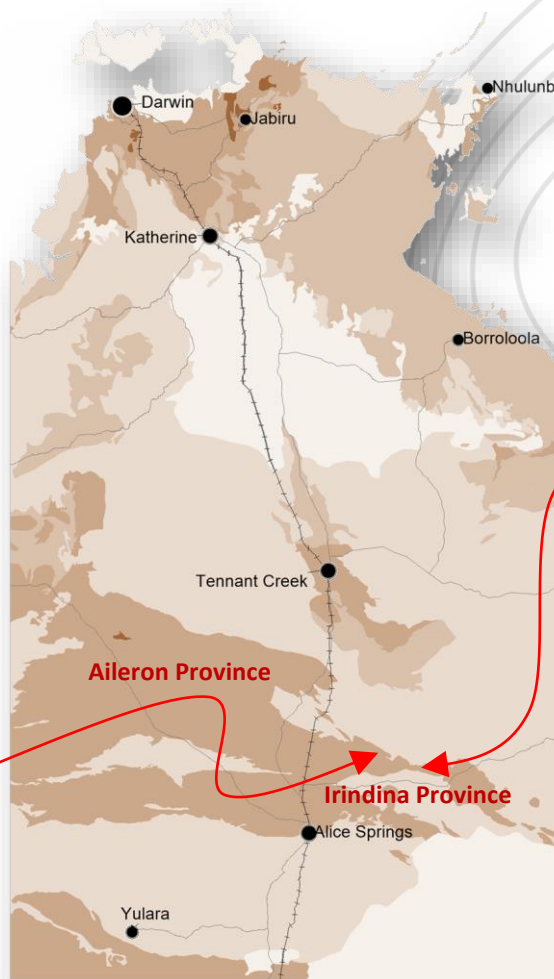
Aileron/Irindina Province

- Updated 100k outcrop geology maps: seamless geology



Dneiper 1:100k outcrop geology

Jinka 1:100k outcrop geology



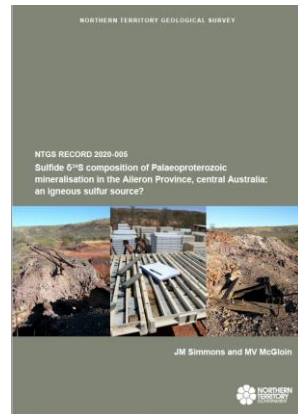
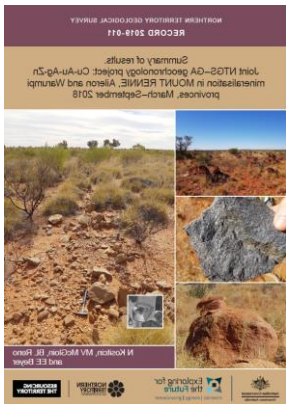
[Jervois Range Special 1:100k outcrop geology](#) and [Explanatory Notes](#) (Weisheit et al 2019)

Stimulating greenfields exploration in central Australia

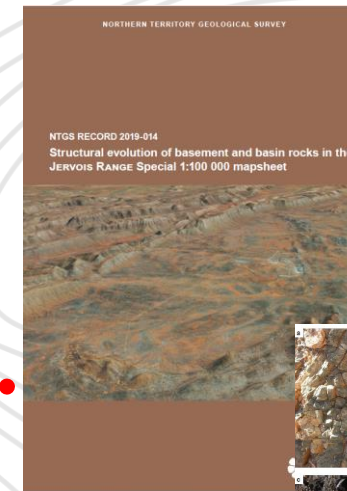
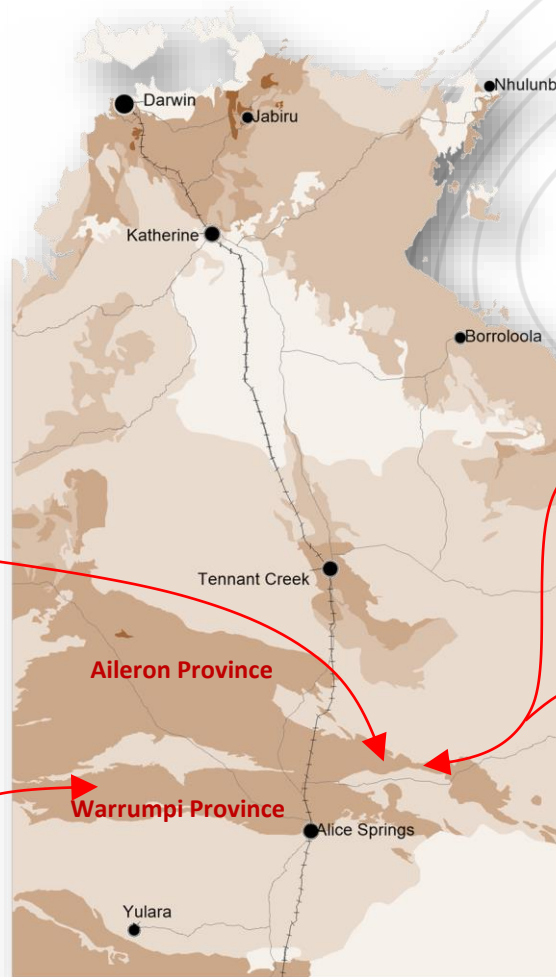
Aileron Province/Warumpi Province

- Understanding structural controls on mineralisation in the Jervois mineral field and mineral system studies in the eastern Aileron Province

[Sulfide \$\delta^{34}\text{S}\$ composition of Palaeoproterozoic mineralisation in the Aileron Province, central Australia: an igneous sulfur source?](#)

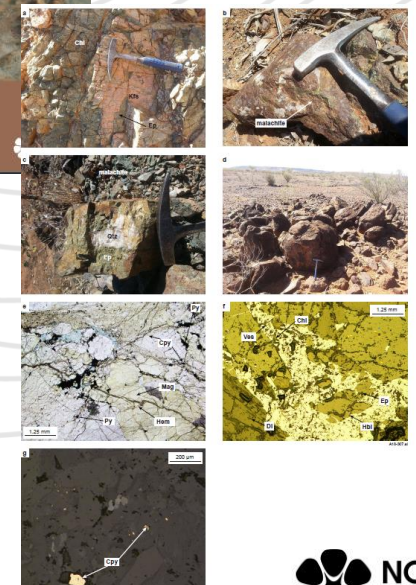


[Cu-Au-Ag-Zn mineralisation in MOUNT RENNIE, Aileron and Warumpi provinces, March - September 2018](#)



[Structural evolution of basement and basin rocks in the Jervois Range Special 1:100 000 \(Weisheit 2019\)](#)

Epigenetic copper and tungsten mineralisation in JINKA and JERVOIS RANGE, northeastern Aileron Province



key NT wide products

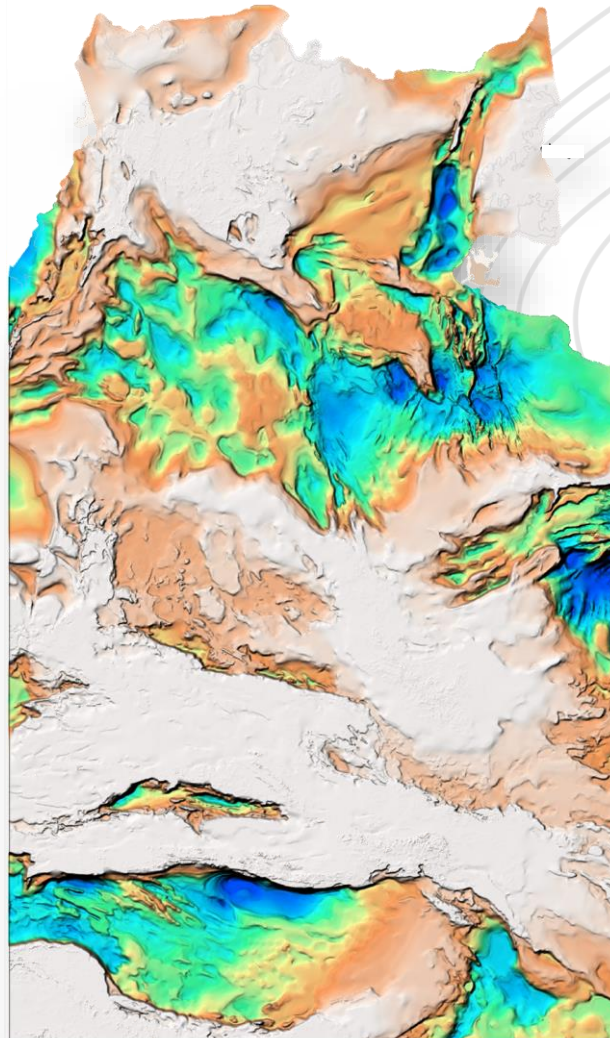
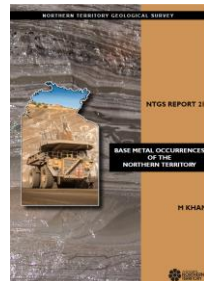
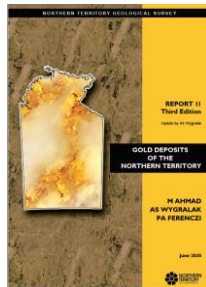
Upcoming

NT wide SEEBASE® (Geognostics)

- Updated from Aust-wide version of 2006 incorporating new seismic, well hole and potential field data

New commodity reports

- Gold deposits of the NT (updated)
- Base metal deposits of the NT (new)



Ongoing

[HyLogger Data Packages](#)

- Interpretation reports from hyperspectral scanning of key drillholes

Updated datasets

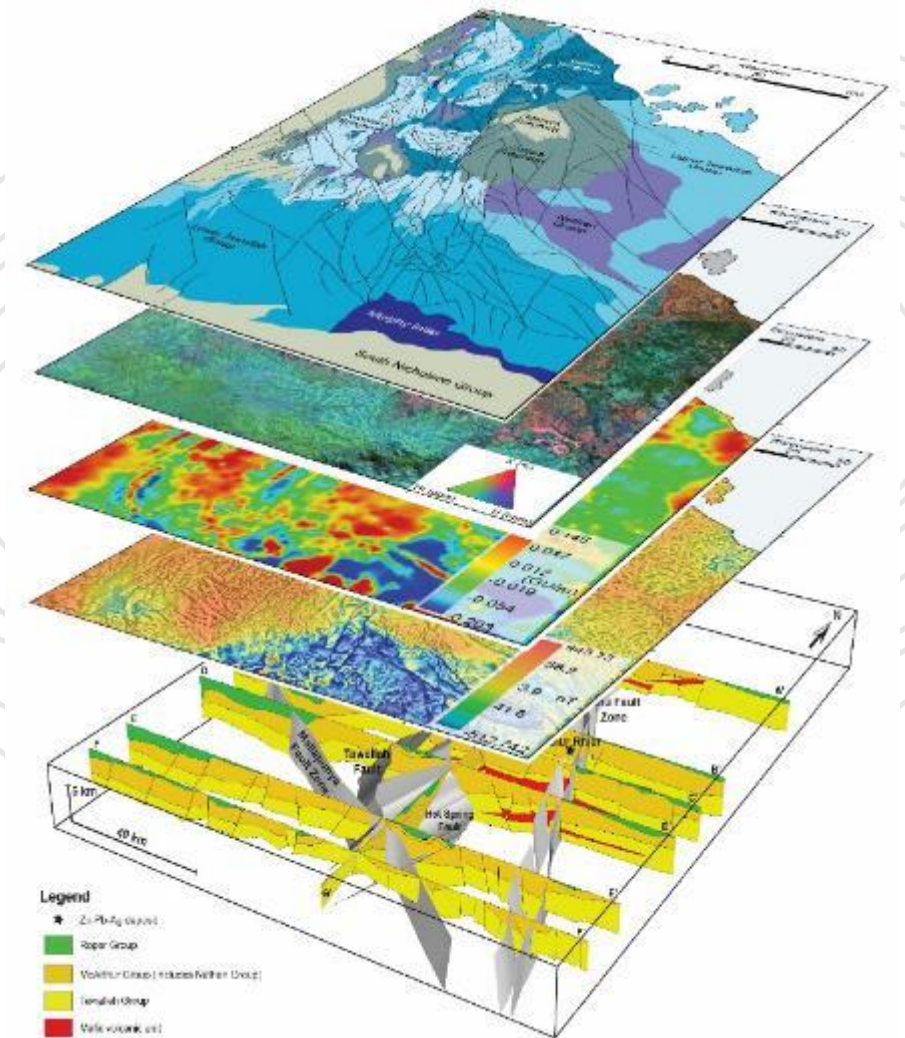
- [Rock property dataset of the Northern Territory](#)
- [NT-wide geophysical stitch: Gravity](#)

Growing the exploration sector

- NTGS is has a diverse range of geoscience programs in progress to stimulate exploration in the NT through the *Resourcing the Territory* initiative.
- In combination with *Exploring for the Future* program this is the biggest campaign of collaborative pre-competitive geoscience in the Territory's history
- Improved website to provide updated information on NTGS products and industry activity



resourcingtheterritory.nt.gov.au



AGES 2021 – April 19-21, 2021

- NTGS's flagship event will now be held at the Alice Springs Convention Centre on 20–21 April, with the ice breaker planned for the evening of 19 April
- The change in date should maximise the opportunity for AGES 2021 to be a traditional face-to-face event, allowing the NT's exploration community to have a welcome occasion to network together again
- AGES is a technical exploration conference with a range of talks from the NTGS, its research partners and the exploration industry.
- ages.nt.gov.au



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Thank you!

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