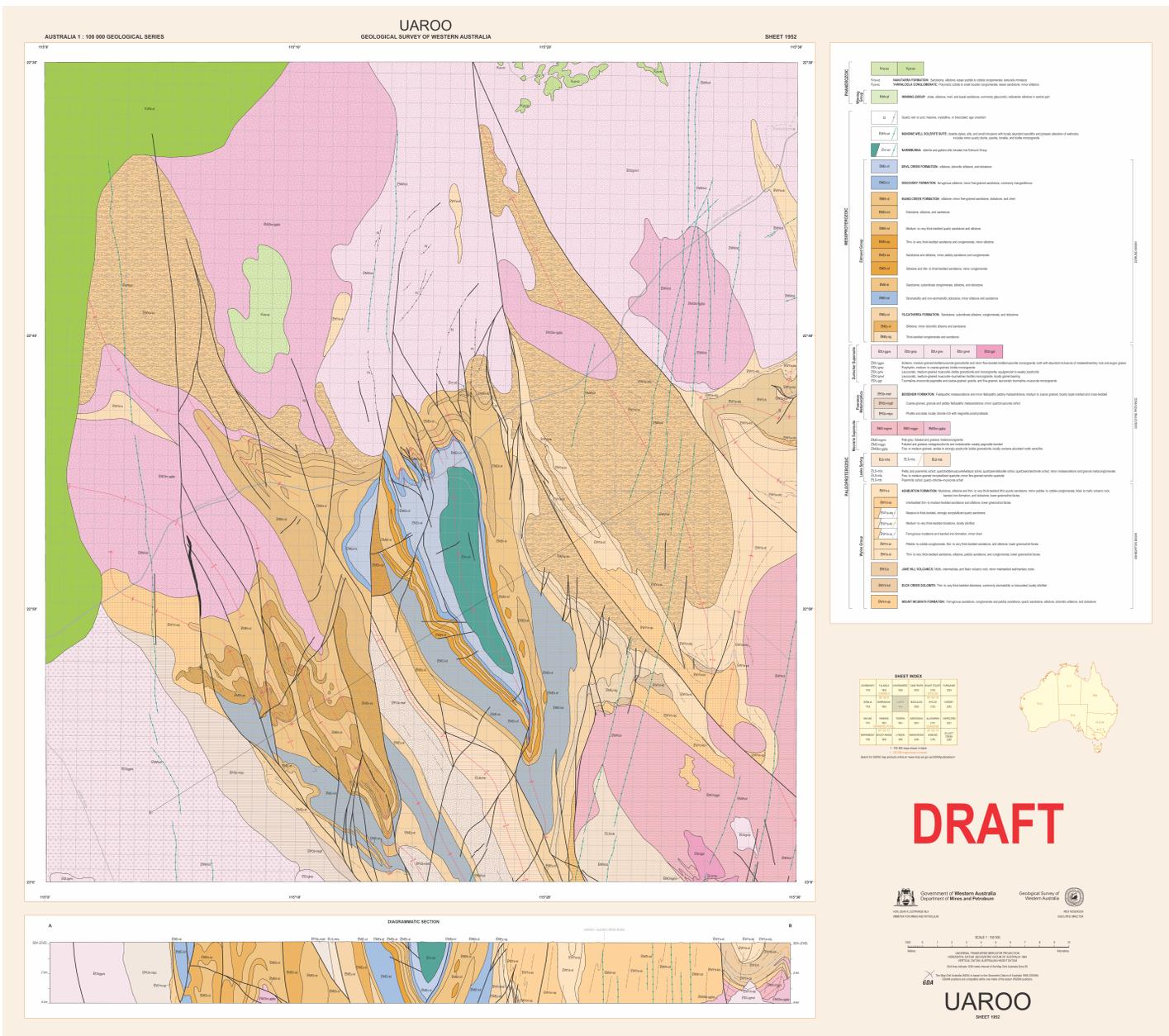


# UAROO 1:100 000



## GRANITIC BASEMENT AND METASEDIMENTARY ROCKS, FOLDING AND FAULTING

UAROO 1:100 000 map sheet is located in the northwestern part of the Capricorn Orogen. Exposed rocks include: medium-grade metasedimentary siliciclastic rocks of the Paleoproterozoic Wyloo Group, Leake Spring Metamorphics, and Pooranoo Metamorphics; Paleoproterozoic granitic rocks of the Moorarie Supersuite and Durlacher Supersuite; low-grade metasedimentary siliciclastic rocks of the Mesoproterozoic Edmund Group; and Phanerozoic sedimentary siliciclastic rocks of the Winning Group, Yarraloola Conglomerate and Nanutarra Formation. The Precambrian succession is intruded by Mesoproterozoic mafic rocks of the Narimbunna Dolerite and Mundine Well Dolerite Suite.

- The oldest rocks on the map sheet are siliciclastic, dolomitic, and volcanoclastic metasedimentary rocks of the 2008–1796 Ma Wyloo Group, that includes the Mount McGrath Formation, Duck Creek Dolomite, June Hill Volcanics and the Ashburton Formation which are exposed in the northern and eastern parts of the map sheet. Siliciclastic rocks of the 1842–1807 Ma Leak Spring Metamorphics are exposed in the southern part of the sheet. These rocks are thought to be low-metamorphic grade equivalents to the Wyloo Group.



June Hill Volcanics – fine-grained felsic volcanics (SPJGAS002123) (HNCUAR003207)



Mount McGrath Formation – conglomerate (SPJGAS002176)



Duck Creek Dolomite (HNCUAR003207)



Durlacher Supersuite - fine to medium grained leucocratic monzogranite with randomly distributed clots and aggregates of tourmaline (SPJGAS002204)



Boolaloo Granodiorite - porphyritic granite (SPJGAS002207)

- These siliciclastic rocks are intruded by voluminous granitic stocks and plutons of the 1820–1775 Ma Moorarie Supersuite, including the Boolaloo Granodiorite, and leucocratic, and tourmaline-bearing granitic rocks of the 1680–1620 Ma Durlacher Supersuite.



Yilgatherra Formation – pebble and boulder conglomerate with well-rounded clasts of quartz in coarse-grained silicified sandstone (HNCUAR003124)



Kiangi Creek Formation – fine- to medium-grained quartz sandstone (HNCUAR003124)



Discovery Formation – medium-bedded black chert on the western limb of the Uaroo Syncline (HNCUAR003553)

- Low-grade siliciclastic metasedimentary rocks of the 1679–1445 Ma Edmund Group form the Uaroo Syncline in the central part of the sheet, as well as extending farther to the west. Basal sandstone and conglomerates of the Yilgatherra Formation rest unconformably on the basement rocks, and are in turn conformably overlain by dolomitic siltstones and sandstone of the Irregularly Formation followed by sandstone, siltstone and conglomerates of the Kiangi Creek Formation. Overlying black chert of the Discovery Formation forms a thin upstanding ridge surrounding the doubly plunging Uaroo Syncline. Siltstone of the Devil Creek Formation and mafic rocks of the Narimbunna Dolerite form the core of the syncline.



Nanutarra Formation – clast supported conglomerate (SPJGAS002210)

- Cretaceous sandstone, siltstone and conglomerate of the Nanutarra Formation are exposed in the western part of the map sheet, whereas polymictic cobble and small boulder conglomerate with lesser sandstone and siltstone of the Yarraloola Conglomerate is exposed in the northern part.

- Steep to near-vertical dips are a prominent characteristic of many of the exposed pre-Cretaceous stratigraphic units.

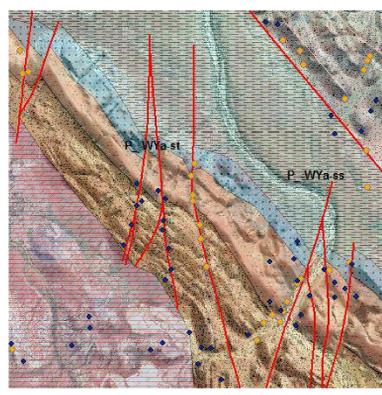
- Faults are numerous and predominantly trend north and northwest with some to the northeast, juxtaposing contrasting units. The faults are often defined by well-exposed thick quartz veins, or veins of quartz breccia, and visibly offset steeply dipping ridges of the resistant, often silicified, stratigraphic units observed in remote sensing images.



Slickenlines indicating sinistral reverse movement on a near-vertical fault plane in a vertical ridge of Discovery Formation (HNCUAR003103)



Slickenlines indicating reverse fault movement in Discovery Formation (HNCUAR003226)



Faults offsetting resistant silicified sandstone ridges of Yilgatherra Formation and Ashburton Formation (hsortho images)

- Slickenlines are well defined on some exposed faults and samples have been recovered for the application of K–Ar dating to define fault movement history.

- Various rocks units across the sheet have been sampled for U–Pb zircon dating in order to determine the age of crystallization, deposition or sedimentary provenance, which can be compared to the well-constrained geological history of the Capricorn Orogen.