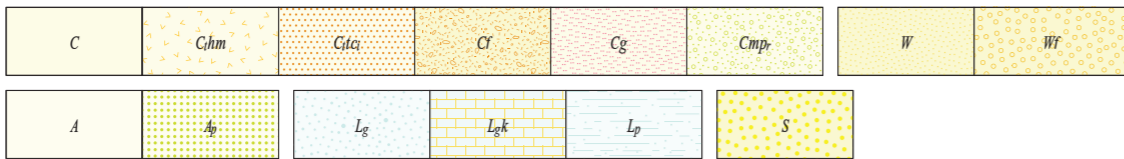


PHANEROZOIC  
CENOZOIC



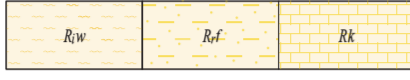
**Colluvial units**  
**C** Colluvium derived from different rock types; includes gravel, sand, and silt  
**C<sub>fm</sub>** Talus with abundant heavy minerals; magnetite-rich material dominant  
**C<sub>fc</sub>** Talus from banded iron-formation and chert; locally cemented  
**C<sub>f</sub>** Ferruginous gravel and reworked ferruginous duricrust  
**C<sub>g</sub>** Quartzofeldspathic gravel, sand, and silt commonly derived from granitic rock and associated weathering products  
**C<sub>mp</sub>** Lithic-rich colluvium dominated by mafic and ultramafic rocks

**Sheetwash units**  
**W** Clay, silt, and sand in extensive fans; local ferruginous gravel  
**W<sub>f</sub>** Clay, silt, and sand with abundant ferruginous grit

**Alluvial units**  
**A** Clay, silt, sand, and gravel in channels and on floodplains  
**A<sub>p</sub>** Clay and silt in claypans

**Lacustrine units**  
**L<sub>g</sub>** Silt, sand, and gravel in halophyte flats adjacent to playas  
**L<sub>pk</sub>** Bedded carbonate, silt, and clay deposits in shallow lakes adjacent to streams and rivers  
**L<sub>p</sub>** Saline and gypsiferous evaporite deposits, clay, silt, and sand in playa lakes

**Sandplain unit**  
**S** Residual and eolian sand with minor silt and clay; low vegetated dunes locally common



**Residual or relict units**  
**R<sub>w</sub>** Deeply weathered rock; protolith undetermined  
**R<sub>f</sub>** Ferruginous duricrust, massive to rubby; includes iron-cemented reworked products  
**R<sub>k</sub>** Residual calcrete and nodular carbonate deposits; includes reworked carbonate products



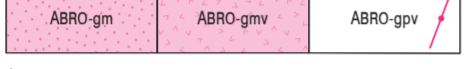
**Egi** Diorite dyke with fine-grained margins; metamorphosed  
**Bod** Dolerite dyke, silt, or plug; fine- to medium-grained dolerite and gabbro  
**Bodh** Hornblende dolerite dyke with fine-grained margins; locally hornblende porphyritic; metamorphosed



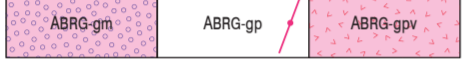
**zq** Quartz vein or pod; massive, crystalline, or brecciated; age uncertain



**AgpY** Pegmatite dyke; metamorphosed  
**AgnpY** Quartz-feldspar porphyritic rock, as dykes; metamorphosed



**ABRO-gm** Monzogranite, typically muscovite- and biotite-rich; predominantly with equigranular texture and locally fluorite bearing; metamorphosed  
**ABRO-gmv** Muscovite-rich granite; locally fluorite bearing; metamorphosed  
**ABRO-gpv** Muscovite-bearing pegmatite, locally fluorite and lepidolite bearing; metamorphosed



**ABRG-gm** Monzogranite, locally rich in muscovite and biotite; predominantly with equigranular texture and locally K-feldspar porphyritic; includes deeply weathered rock; metamorphosed  
**ABRG-gp** Pegmatite with granophyric intergrowths; metamorphosed  
**ABRG-gpv** Muscovite-rich pegmatite with books of muscovite and quartz-feldspar intergrowths greater than 1 cm; lepidolite and fluorite bearing locally; metamorphosed

**Deformation event 2 (D<sub>2</sub>): 2665–2640 Ma**

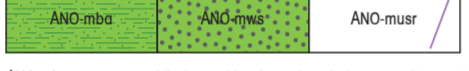


**AJU-mg** Biotite metagranite; dominantly metamonzogranite; minor metagranodiorite, metasyenogranite, and metapegmatite; fine to coarse grained; locally gneissic  
**AJU-jmgm-mog** Metamonzogranite with muscovite-rich patches; contains abundant decimetre-sized rafts of amphibolitic metagabbro; locally highly schistose  
**AJU-mgm** Biotite metagranite; minor metagranodiorite, metasyenogranite, and metapegmatite; fine to coarse grained; locally gneissic  
**AJU-mgms** Foliated biotite metamonzogranite; minor metagranodiorite, metasyenogranite, and metapegmatite; fine to coarse grained; locally gneissic

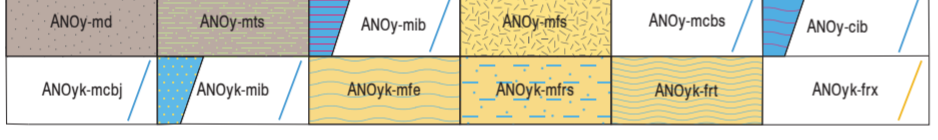


**ATU-mgm** Metamonzogranite; medium to coarse grained, K-feldspar phenocrystic; foliated  
**ATU-mgms** Biotite metamonzogranite; strongly foliated

**Deformation event 1 (D<sub>1</sub>): 2710–2690 Ma**



**ANO-mba** Amphibolite and local metabasalt; fine to medium grained; typically foliated and lineated  
**ANO-mws** Mafic schist with abundant chlorite and actinolite; local amphibolite  
**ANO-musr** Tremolite-chlorite-(calc) schist



**YALOGINDA FORMATION**  
**ANOy-md** Metasiliclastic rocks  
**ANOy-mts** Psammite schist; locally grades into pelitic schist; locally strongly sheared  
**ANOy-mb** Meta banded iron-formation; typically with coarse, granular, and recrystallized magnetite crystals; foliated  
**ANOy-mfs** Felsic schist derived from volcanic rock; locally strongly sheared  
**ANOy-mcbs** Strongly foliated metachert, locally ferruginous  
**ANOy-cib** Banded iron-formation and ferruginous banded chert; metamorphosed  
**Kantile Murdana Volcanics Member**  
**ANOy-k-mcbj** Meta banded chert with interlayering of ferruginous bands on a centimetre scale  
**ANOy-k-mib** Foliated meta banded iron-formation; typically with coarse, granular, recrystallized magnetite crystals  
**ANOy-k-mfe** Recrystallized, equigranular felsic volcanic and sedimentary rocks with 1–5 mm grain size  
**ANOy-k-mfs** Rhyolitic felsic schist; locally strongly sheared  
**ANOy-k-frt** Felsic tuff and tuffaceous rock; finely banded, fine to medium grained, rhyolite to dacite with quartz and feldspar phenocrysts; metamorphosed; variably foliated  
**ANOy-k-frx** Rhyolitic to rhyodacitic breccia and tuff; massive to poorly bedded, with lithic clasts (<1 cm) in fine-grained to glassy matrix; includes some felsic volcanic rock; metamorphosed

PROTEROZOIC

c. 2610 Ma

Wogala Suite

2640–2600 Ma

Bald Rock Supersuite  
Walganna Suite

2665–2640 Ma

Junggar Suite

Tuckanarra Suite

2815–2800 Ma

Murchison Supergroup  
Morlie Group

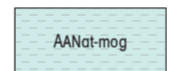
c. 2813 Ma

ARCHEAN

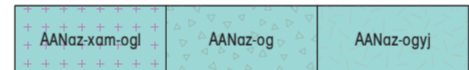
c. 2813 Ma

Annean Supersuite  
Mealine Suite

ATLEYS IGNEOUS COMPLEX



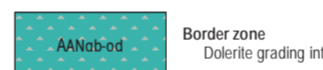
**AANat-mog** Metagabbro with amphibole pseudomorphs after pyroxene



**Upper zone**  
**AANaz-xam-ogj** Magnetite units interlayered with magnetite- and ilmenite-bearing leucogabbro; modally layered on a metre scale; metamorphosed  
**AANaz-og** Gabbro grading into magnetite- and ilmenite-bearing olivine gabbro, leucogabbro, and gabbronorite; metamorphosed  
**AANaz-ogjy** Layered gabbro; typically magnetite- and ilmenite-bearing; minor anorthosite and leucogabbronorite; metamorphosed



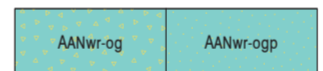
**Middle zone**  
**AANam-mat** Serpentine derived from peridotitic igneous layers; locally grades into metapyroxenite  
**AANam-od** Dolerite grading into gabbro; metamorphosed  
**AANam-og** Gabbro locally grading into leucogabbro and magnetite-bearing gabbro; metamorphosed (section only)  
**AANam-ogy** Gabbro with well developed modal layering of pyroxene and plagioclase; locally grading into leucogabbro and magnetite-bearing gabbro; metamorphosed



**Border zone**  
**AANab-od** Dolerite grading into gabbro; locally as large xenoliths within gabbro and gabbronorite; metamorphosed



**AANw-mag** Metagabbro with amphibole pseudomorphs after pyroxene; grades into metagabbronorite; locally sheared; locally magnetite-bearing



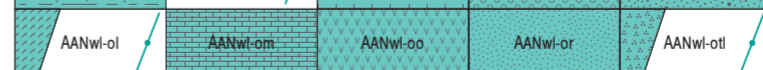
**Roof zone**  
**AANwr-og** Gabbro with locally developed spinifex texture; grades into dolerite; metamorphosed  
**AANwr-ogp** Porphyritic gabbro; plagioclase phenocrysts typically <20 mm in a 4–8 mm matrix of plagioclase, clinopyroxene, and minor oxides; metamorphosed



**Upper zone**  
**AANwz-mog** Metagabbro with amphibole pseudomorphs after pyroxene, grading into metagabbronorite; locally sheared; locally magnetite and/or ilmenite bearing  
**AANwz-xot-omy** Interlayered magnetite- and ilmenite-bearing leucotroctolite and layered magnetite units <0.5 m thick; metamorphosed  
**AANwz-ogj** Leucogabbro grading into anorthosite and magnetite- and/or ilmenite-bearing gabbro; locally abundant clinopyroxene oikocrysts up to 30 mm enclose euhedral cumulate plagioclase crystals; metamorphosed  
**AANwz-am** Magnetite layers <1 m thick in magnetite-rich gabbro; locally with undulating bases; magnetite encloses plagioclase chadacrysts; metamorphosed



**Middle zone**  
**AANwm-og** Gabbro grading into magnetite-bearing gabbro, leucogabbro, and gabbronorite; metamorphosed  
**AANwm-ogj** Gabbro with cumulus magnetite, grading into magnetite-bearing gabbronorite, leucogabbro, and olivine leucogabbronorite; metamorphosed  
**AANwm-ogl** Leucogabbro grading into anorthosite and gabbro; locally abundant clinopyroxene oikocrysts up to 30 mm enclose euhedral plagioclase cumulate crystals; metamorphosed  
**AANwm-ogj** Leucogabbro grading into anorthosite and magnetite-bearing gabbro; locally abundant clinopyroxene oikocrysts up to 30 mm enclose euhedral plagioclase cumulate crystals; metamorphosed  
**AANwm-ogx** Pyroxene-rich gabbro; locally very coarse grained and grading into pyroxenite and magnetite-bearing gabbro; minor modal layering; metamorphosed  
**AANwm-ol** Olivine gabbronorite grading into olivine gabbro and olivine leucogabbronorite; minor modal layering and locally magnetite-bearing; metamorphosed  
**AANwm-om** Gabbronorite, locally with modal layering of pyroxene and plagioclase grading into leucogabbronorite; minor intercumulus magnetite; metamorphosed  
**AANwm-or** Olivine norite; locally grading into olivine gabbronorite and olivine leuconorite; minor cumulus magnetite; metamorphosed  
**AANwm-ot** Troctolite; locally grading into olivine gabbronorite and leucotroctolite; metamorphosed  
**AANwm-otl** Leucotroctolite; locally grading into anorthosite and troctolite; metamorphosed  
**AANwm-ow** Norite; locally grading into gabbronorite and leuconorite with minor magnetite-bearing rocks; metamorphosed  
**AANwm-om** Magnetite layers <1 m thick with locally undulating basal contacts; magnetite crystals enclose plagioclase in magnetite-rich gabbro; metamorphosed



**Lower zone**  
**AANwi-mog** Metagabbro with amphibole pseudomorphs after pyroxene; grading into metagabbronorite; locally sheared  
**AANwi-oo** Anorthosite with weak plagioclase lamination and crystal size up to 8 mm; metamorphosed  
**AANwi-og** Gabbro grading into leucogabbro and gabbronorite; locally with modal layering of pyroxene and plagioclase; metamorphosed  
**AANwi-ogj** Leucogabbro grading into anorthosite and gabbro; locally abundant clinopyroxene oikocrysts up to 30 mm enclose euhedral cumulate plagioclase crystals; metamorphosed  
**AANwi-ogly** Layered leucogabbro; modal layering of plagioclase and pyroxenes on a decimetre scale; locally abundant clinopyroxene oikocrysts up to 30 mm; metamorphosed  
**AANwi-ogz** Ophitic leucogabbro, typically with pyroxene oikocrysts less than 30 mm across enclosing euhedral plagioclase cumulate crystals less than 10 mm in size; metamorphosed  
**AANwi-ogx** Pyroxene gabbro; locally very coarse grained and grading into pyroxenite and gabbro; minor modal layering; metamorphosed  
**AANwi-ol** Olivine gabbronorite grading into olivine gabbro and olivine leucogabbronorite; metamorphosed  
**AANwi-om** Gabbronorite, typically with igneous layering and locally grading into leucogabbronorite; rare intercumulus magnetite; metamorphosed  
**AANwi-oo** Olivine gabbro, locally grading into olivine gabbronorite  
**AANwi-or** Olivine norite; locally grading into olivine gabbronorite and olivine leuconorite; metamorphosed  
**AANwi-otl** Leucotroctolite; locally grading into anorthosite and troctolite; metamorphosed  
**AANwi-owl** Norite; locally grading into gabbronorite and leuconorite with very coarse grained patches; metamorphosed  
**AANwi-ox** Coarse-grained pyroxenite grading into gabbronorite; locally pegmatitic; metamorphosed  
**AANwi-oxd** Very coarse grained pyroxenite, typically pegmatitic; metamorphosed



**Border zone**  
**AANwb-mog** Metagabbro with 3–5 mm grain size and amphibole pseudomorphs after pyroxenes; locally grading into dolerite; metamorphosed  
**AANwb-od** Dolerite, locally grading into gabbro; shear zones typically at the margins of exposures; metamorphosed

Murchison Domain  
Younambi Terrane

YALOGINDA FORMATION