PHANEROZOIC

CENOZOIC

Unassigned

Sheetwash units

W	Sandy and clayey distal sheetwash and slope deposits; no clearly defined drainage
Wt	Sheetwash deposits of silt and sand characterized by banded mosaic vegetation ('tiger bush'); banding is normal to slope
Wq	Predominantly quartz-rich silt, sand, and gravel derived from quartz veins and quartz-rich rock
Wf	Predominantly iron rich sand and silt, derived from relict ferruginous deposits

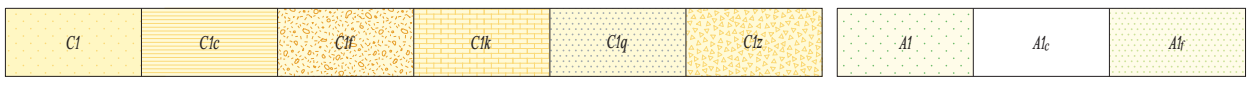
Alluvial units

Ai	Unconsolidated, fine-grained deposits in alluvial drainage depressions, claypans, and perennial floodplain lakes; low-lying areas with internal drainage
Av	Fan-shape deposits of unconsolidated, fine-grained sand to boulders in fine-grained matrix on steep hill slope

Sandplain unit

S	Quartz sand of mixed origin; includes residual and eolian sands

QUATERNARY

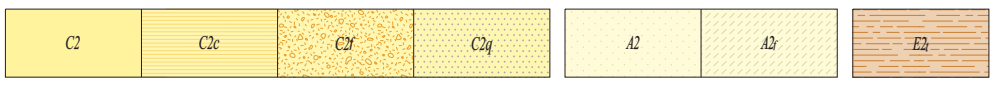


Colluvial units, third generation

C1	Quartz and rock fragments in an unconsolidated silt and sand matrix; includes ferruginous deposits
C1c	Clay, quartz sand, and deeply weathered rock fragments; reworked saprolite and saprock
C1f	Unconsolidated ferruginous rubble and scree
C1k	Calcrete, carbonate and vuggy opaline silica rubble and scree in an unconsolidated, sandy carbonate-rich matrix
C1q	Unconsolidated quartz fragments in a silt and sand matrix, derived from quartz veins and quartzose rocks
C1z	Unconsolidated rubble and scree of silcrete and brecciated siliceous caprock

Alluvial units, third generation

A1	Unconsolidated silt, sand, and gravel in active drainage channels and floodplains; includes ferruginous deposits
A1c	Unconsolidated silt, sand, and gravel in stream channels
A1f	Unconsolidated silt, sand, and minor gravel in floodplains adjacent to present-day drainage



Colluvial units, second generation

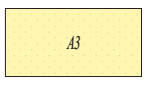
C2	Quartz and rock fragments in a partly consolidated silt and sand matrix
C2c	Deeply weathered rock fragments in a partly consolidated clay and sand matrix; reworked saprolite and saprock
C2f	Partly consolidated ferruginous rubble and scree
C2q	Quartz fragments in a partly consolidated silt and sand matrix, derived from quartz veins and quartzose rocks

Alluvial units, second generation

A2	Partly consolidated silt, sand, and gravel; partly dissected by present-day drainage
A2f	Weakly cemented and compacted silt, sand, and minor gravel in floodplains adjacent to older drainage; partly dissected by present-day drainage

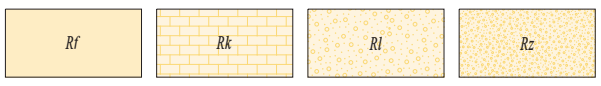
Eolian unit, second generation

E2q	Consolidated fine-grained eolian sand over older alluvuim



Alluvial unit, first generation

A3	Weakly cemented and compacted silt, sand, and gravel; deeply dissected by present-day drainage



Residual or relict units

Rf	Ferruginous deposits, including lateritic, ferruginous, and manganiferous duricrust
Rk	Calcrete, developed in and adjacent to alluvial channels; carbonate and vuggy opaline silica; dissected by major present-day drainage
Rl	Saprolite and saprock of uncertain protolith
Rz	Silcrete and brecciated siliceous caprock

NEOGENE

PLIOCENE–PLEISTOCENE

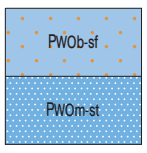
NADARRA FORMATION: silty micritic limestone; includes minor calcrete; muddy, commonly silicified; lacustrine

PALEOZOIC

PERMIAN

CARBONIFEROUS

Wooramel Group

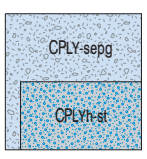


BILLIDEE FORMATION: grey siltstone; fine- to medium-grained sandstone; lesser black shale; minor granule to pebble conglomerate

MOOGOOLOO SANDSTONE: fine to very coarse grained quartz sandstone; minor siltstone and granule to pebble conglomerate

CALLYTHARRA FORMATION: fossiliferous, calcareous siltstone to calcisiltite; interbedded, hard fossiliferous calcarenite

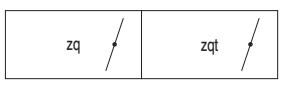
Lyons Group



Undivided; diamictite, sandstone and siltstone (locally calcareous), shale, and boulder beds and lags; glacigene

HARRIS SANDSTONE: fine- to coarse-grained sandstone; minor siltstone and (near base) diamictite

SOUTHERN CARNARVON BASIN

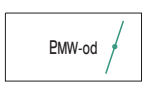


zq	Quartz vein or pod; massive, crystalline, or brecciated; age uncertain
zqt	Quartz–tourmaline veins; various ages

MESOPROTEROZOIC – NEOPROTEROZOIC

Mulka Tectonic Event (c. 570 Ma)

c. 755 Ma[1]



MUNDINE WELL DOLERITE SUITE: dolerite dykes, sills, and small intrusions with locally abundant xenoliths and potassic alteration of wallrocks; includes minor quartz diorite, syenite, tonalite, and biotite monzogranite

Edmundian Orogeny (1030–955 Ma[2])

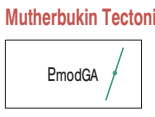
c. 954 Ma

Thirty Three Supersuite

Muscovite–tourmaline pegmatite; local rare-element bearing pegmatite

Mutherbukin Tectonic Event (1280–1250 Ma)

1667–1280 Ma



Massive metadolerite and foliated amphibolite; fine and medium grained

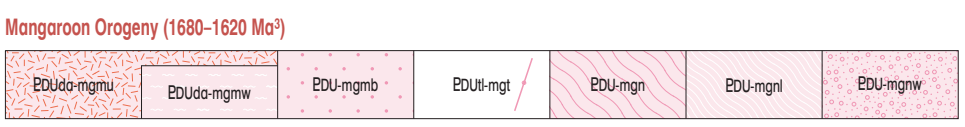
Mangaroon Orogeny (1680–1620 Ma[3])

PROTEROZOIC

PALEOPROTEROZOIC

1667–1619 Ma

Durlacher Supersuite

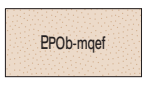


PDUda-mgmu	**DAVEY WELL GRANITE:** schistose, coarse-grained, strongly porphyritic biotite metamonzogranite; round phenocrysts of K-feldspar up to 6 cm in diameter
PDUda-mgmw	Coarse-grained, porphyritic, mesocratic biotite metamonzogranite; round and tabular phenocrysts of K-feldspar up to 3 cm in diameter
PDU-mgmb	Foliated, medium-grained and fine- to medium-grained equigranular or sparsely porphyritic biotite(–muscovite) metamonzogranite; commonly with igneous banding
PDUtl-mgt	**TETLOW GRANITE:** aegirine–augite- or hornblende-bearing metamorphosed quartz diorite and metatonalite; scattered inclusions of amphibolite
PDU-mgn	Gneissic to schistose biotite metamonzogranite and metasyenogranite; fine and medium grained; pegmatite banded
PDU-mgnl	Gneissic to schistose, leucocratic biotite–muscovite metamonzogranite and metasyenogranite; fine and medium grained; pegmatite banded
PDU-mgnw	Seriate to coarsely porphyritic mesocratic gneiss; sheets and dykes of metagranodiorite to metamonzogranite with screens and inclusions of amphibolite, calc-silicate, and older gneissic granites

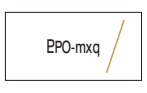
Pooranoo Metamorphics

Mount James Subgroup

1758–1677 Ma



BIDDENEW FORMATION: coarse-grained, granule- and pebble-rich feldspathic metasandstone; minor quartz–muscovite schist

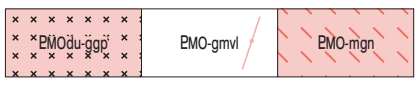


Cobble- and pebble-metaconglomerate, and coarse-grained granule and pebbly quartz metasandstone; minor quartz–muscovite schist

Capricorn Orogeny (1820–1770 Ma[4])

1811–1799 Ma

Moorarie Supersuite



PMOdu-ggp	**DUMBIE GRANODIORITE:** porphyritic, fine- to medium-grained granodiorite; minor monzogranite; medium to coarse tabular phenocrysts of K-feldspar; locally magnetite and allanite bearing
PMO-gmvl	Medium- to coarse-grained, even-textured, leucocratic, biotite-poor muscovite monzogranite; locally foliated and metamorphosed
PMO-mgn	Pegmatite-banded gneissic and foliated granite; protoliths include gneissic, mesocratic biotite-rich metamonzogranite to metagranodiorite, foliated porphyritic metamonzogranite, and minor foliated, leucocratic garnet metagranite and metapegmatite

Glenburgh Orogeny (2005–1950 Ma)

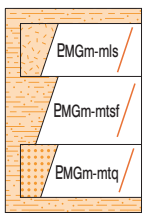
2125–1965 Ma

Unassigned unit

Plagioclase–actinolite–tremolite gneiss; after gabbro

2240–2125 Ma

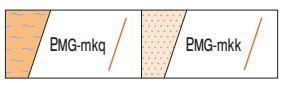
Moogie Metamorphics



Pelitic schist, commonly with chloritoid; locally with relict garnet porphyroblasts

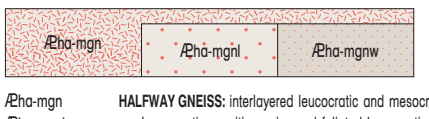
MUMBA PSAMMITE: quartzofeldspathic psammitic schist, commonly with chloritoid; local minor pelitic schist and quartzite

Metamorphosed quartz sandstone, granule metaconglomerate, and quartzite gneiss; locally micaceous; minor psammitic schist; locally with relict cross-bedding



PMG-mkq	Calc-silicate gneiss; pargasite- or diopside-bearing quartz–plagioclase–epidote(–titanite) rock; tremolite–diopside(–garnet) calc-silicate rock with minor marble
PMG-mkk	Marble; dolomite(–quartz) and dolomite–calcite–forsterite–clinohumite–serpentine rock; locally contains garnet

ARCHEAN–PROTEROZOIC



2663–2429 Ma

Æha-mgn	**HALFWAY GNEISS:** interlayered leucocratic and mesocratic granitic gneiss, pale-grey granitic gneiss and foliated metagranite, and gneissic to foliated porphyritic metagranodiorite
Æha-mgnl	Leucocratic granitic gneiss and foliated leucocratic metagranite; derived from biotite monzogranite and granodiorite
Æha-mgnw	Mesocratic granitic gneiss; derived from variably porphyritic tonalite

Glenburgh Terrane

GASCOYNE PROVINCE