PHANEROZOIC

CAINOZOIC

QUATERNARY

Qa | Ql | Qd | Qs | Qp | Qc | Qe | Qb | Qt

Qa Alluvium—unconsolidated clay, silt, sand, and gravel; in drainage channels and on adjacent floodplains
Ql Lacustrine deposits—clay, silt, and silty sand; playa (saline) and claypan (freshwater) deposits
Qd Mixed lacustrine and eolian deposits—clay, silt, and sand; vegetated swamps, numerous small claypans with fringing lunette dunes
Qs Eolian deposit—sand; in sheets and longitudinal (seif) and chain dunes
Qp Lag and eolian deposits—ironstone pebble, rock fragment, or quartz pebble veneer with eolian sand; in sheets and between dunes; overlies shallow bedrock
Qc Colluvium—quartz pebble and rock fragment veneer on sand; adjacent to or on shallow bedrock; scree deposits
Qe Colluvium and eluvium—clay hardpan, partly ferruginized silt, sand, and gravel derived from and overlying Czc and Czz
Qb Eluvium—swelling clay soil (gilgai); characterized by crabhole
Qt Eluvium—scattered boulders, cobbles, and pebbles on clay, silt, and sand; lag deposit derived from fluvioglacial PATERSON FORMATION

Czos | Czoc | Czk | Czc | Czz | Czl | Czd

Czos **OAKOVER FORMATION**, upper unit; vuggy, white to grey opaline silica; silicified carbonate; minor calcareous sandstone
Czoc **OAKOVER FORMATION**, lower unit; blue, grey and fawn limestone, calcareous sandstone
Czk Calcrete—massive, nodular and vuggy limestone; some surface silicification in palaeodrainages
Czc Colluvium—consolidated silt, sand, gravel, boulder beds, and fluvial deposits; dissected by present-day drainage
Czz Silcrete and siliceous duricrust; secondary chert breccia
Czl Lateritic deposits—massive and pisolitic laterite, and ferruginous duricrust
Czd Ferruginous duricrust; overlying and restricted to top of JEERINAH FORMATION

PALAEOZOIC

PERMIAN

Pa **PATERSON FORMATION:** fine- to coarse-grained sandstone, siltstone, and mudstone (all with dropstones); diamictite, fluvioglacial deposits

CANNING BASIN

PROTEROZOIC

q | go

q Quartz vein and pod; various ages
go Gossanous quartz vein

Ꝑd Dolerite dyke and sill

*c.*800 Ma

Tarcunyah Group

PUy **YANDANUNYAH FORMATION:** siltstone, shale, and fine-grained sandstone

PUr **BROWNRIGG SANDSTONE:** fine- to coarse-grained sandstone and orthoquartzite; pyrite nodules

PUw **WAROONGUNYAH FORMATION:** shale, siltstone, sandstone, and dolomite

PUg **GOOGHENAMA FORMATION:** medium- to coarse-grained sandstone and pebble to boulder conglomerate

PUa **WALTHA WOORA FORMATION:** dolomite, stromatolitic dolomite, siltstone, shale, and sandstone

PUas Medium- to coarse-grained sandstone; pebbly sandstone and conglomerate

PATERSON OROGEN

> 900 Ma

Yeneena Supergroup

Throssell Group

ꝐTb | ꝐTbs | ꝐTbf

ꝐTb **BROADHURST FORMATION:** shale, carbonaceous shale, siltstone, wacke, sandstone, and dolomite (section only)
ꝐTbs Carbonaceous shale, shale, siltstone, and fine-grained sandstone
ꝐTbf Fine- to medium-grained feldspathic sandstone and wacke

ꝐTc **COOLBRO SANDSTONE:** quartz sandstone, quartz wacke, siltstone, and shale (section only)

Yeneena Basin

Ꝑdd **DAVIS DOLERITE:** fine- to medium-grained dolerite; in sills; prominent magnetite

BANGEMALL BASIN

Bangemall Group

Manganese Subgroup

ꝐMw | ꝐMwa | ꝐMwd

ꝐMw **WOBLEGUN FORMATION:** shale and siltstone, interbedded with fine-grained sandstone
ꝐMwa Medium- to coarse-grained sandstone, and pebbly sandstone; thin beds of conglomerate and siltstone
ꝐMwd Grey-brown dolomite and stromatolitic dolomite

ARCHAEAN

Mount Bruce Supergroup

Hamersley Group

Ꝑcb **PINJIAN CHERT BRECCIA:** chert breccia, poorly bedded chert; overlies CARAWINE DOLOMITE

> 2500 Ma

AHc **CARAWINE DOLOMITE:** massive to well-bedded, recrystallized, dolomite and stromatolitic dolomite; minor chert

Ad Fine- to coarse-grained dolerite; in dykes and sills; weakly metamorphosed

c. 2687 Ma

Fortescue Group

AFj **JEERINAH FORMATION:** shale, chert, ferruginous chert, mudstone, fine-grained sandstone, and dolomite

AFm **MADDINA BASALT:** basalt and andesitic basalt with silicified flow tops; abundant quartz-chlorite amygdales

AFma Well stratified, tuffaceous sedimentary rock; common accretionary lapilli

AFt **TUMBIANA FORMATION:** tuff, pisolitic tuff, mudstone, and lithic sandstone

AFk **KYLENA BASALT:** basalt and basaltic andesite; flows

AFhw | AFhwh | AFhwr | AFhwt | AFhwa | AFhwf | AFhwo | AFhws

AFhp | qm | qh

c. 2757-2764 Ma

AFhi | ARp | ARr | ARy | ARm

Hamersley Basin

PILBARA CRATON

HARDEY FORMATION

AFhw **Warri Warri Member:** mixed felsic and mafic lavas, and tuffaceous and epiclastic sedimentary rocks (section only)
AFhwh Mixed felsic and mafic lavas
AFhwr Rhyolite
AFhwt Tuffaceous sedimentary rock
AFhwa Felsic agglomerate
AFhwf Stratiform felsic volcanic rock
AFhwo Oligomictic conglomerate; felsic clasts
AFhws Epiclastic sedimentary rock; mainly sandstone
AFhp Rhyolite porphyry sill; brecciated rhyolite dyke, sanidine-bearing felsic dyke
AFhi **Koongaling Volcanic Member:** porphyritic and fine-grained felsic lavas; dacite, rhyodacite, and rhyolite

GREGORY GRANITIC COMPLEX

qm Quartz mylonite zone
qh Quartz-hematite (martite) vein
ARp Even, fine-grained to microporphyritic granitoid rock; probably derived from high-grade metamorphism of rhyolitic volcanic rocks (possibly related to Koongaling Volcanic Member)
ARr Metamorphosed porphyritic to seriate syenogranite, rapakivi texture; sheared, foliated, and gneissic
ARy Granophyre, gneissic granophyre, granophyric gneiss
ARm Metamorphosed medium- to coarse-grained syenogranite; sheared, foliated, and gneissic

Alqm | Adm | Aut

Alqm Schistose metasedimentary rock; quartz-muscovite-biotite-sillimanite(-cordierite) assemblages; metamorphosed quartz pebble conglomerate
Adm Metamorphosed dolerite and gabbro, and amphibolite
Aut Ultramafic intrusive rock, talc-chlorite-tremolite-serpentine assemblages

Rafts restricted to GREGORY GRANITIC COMPLEX