

PHANEROZOIC

QUATERNARY	Qa	Ql	Qw
	<p>Qa Alluvium—unconsolidated silt, sand, and gravel          Ql Lacustrine deposits—clay and silt          Qw Alluvium and colluvium—sheetwash deposits; red-brown sandy and clayey soil</p>		
CENOZOIC	Czc	Czqc	Czl
	Czs	Czb	
	<p>Czc Colluvium—partly consolidated scree and valley-fill deposits          Czqc Partly consolidated quartz-rich gravel and pebbly sand          Czl Latelite—massive and pisolitic ferruginous duricrust; forms plateaux overlying deeply weathered rock; steep breakaways commonly form at the margins          Czs Colluvium and alluvium—partly consolidated silt, sand, and gravel adjacent to drainage; sandplain on laterite surface          Czb Black soil—clay and silt</p>		
	Tl	LAWFORD FORMATION: limestone, calcareous siltstone, silicified limestone, and chalcodony	
	Td	Eocene Conglomerate, breccia, and brecciated sandstone, crater-fill deposits associated with the Goat Paddock impact structure	

PERMIAN	Plh	HARDMAN FORMATION: medium-grained ferruginous sandstone; shallow marine to coastal
	Plro	CONDREN FORMATION: undifferentiated; sandstone and siltstone; fluvial
	Plrb	Ferruginous siltstone and sandstone; fluvial
	Plrc	Medium-grained quartz sandstone, silty sandstone; fluvial
	Plj	LIGHTJACK FORMATION: fine-grained quartz wacke, ferruginous siltstone, and sandstone; shallow marine deltaic
EARLY PERMIAN	Ph	NOONKANBAH FORMATION: fine-grained calcareous sandstone, ferruginous sandstone, and shale; restricted marine
	CPG	GRANT GROUP: massive, medium- to coarse-grained silty sandstone and siltstone, and boulder conglomerate; fluvial, lacustrine, glacially influenced in part
LATE CARBONIFEROUS – EARLY PERMIAN	DCF	FAIRFIELD GROUP: limestone, sandstone, siltstone, and shale; shallow marine
	FAMENNIAN	

EARLY CARBONIFEROUS	Di	PIKER HILLS FORMATION: fore-reef subfacies and basin facies; calcarenite, limestone breccia and megabreccia, sandstone, siltstone, and minor conglomerate
	Du	BUGLE GAP LIMESTONE: fore-reef subfacies; calcarenite, limestone breccia, and megabreccia
	Dw	WINDJANA LIMESTONE: reef-margin subfacies; massive cyanobacterial limestone and dolomite
	Df	NULLARA LIMESTONE: back-reef to reef-flat subfacies; bedded cyanobacterial limestone; subordinate dolomite
MIDDLE – LATE DEVONIAN	Dr	VIRGIN HILLS FORMATION: fore-reef subfacies and basin facies; calcarenite, limestone breccia and megabreccia, siltstone, sandstone, and minor conglomerate; characteristically red in colour; includes calcareous sandstone in Sparke Range area
	Dg	GOGO FORMATION: basin facies; siltstone, shale, and calcarenite commonly with cannon-ball concretions; lesser sandstone and minor conglomerate
LATE DEVONIAN – EARLY CARBONIFEROUS	Dd	SADLER LIMESTONE: fore-reef subfacies; calcarenite and limestone breccia and megabreccia
	Dp	PILLARA LIMESTONE: platform facies—back-reef, reef-flat, and reef-margin subfacies; biostromal back-reef stromatopora, coral, and cyanobacterial limestone; cyclic interbeds of sandstone, siltstone, and minor conglomerate; rimmed by stromatopora and cyanobacterial reef frametones

FRASNIAN – FAMESNIAN	Dca	BARRAMUNDI CONGLOMERATE: boulder, cobble, and pebble conglomerate; poorly exposed; interbedded locally with NULLARA LIMESTONE and PIKER HILLS FORMATION; platform setting; early to middle Famennian
	Dce	ELMA CONGLOMERATE: boulder, cobble, and pebble conglomerate; poorly exposed; interbedded locally with PILLARA, NULLARA, and SADLER LIMESTONES, and VIRGIN HILLS FORMATION; platform and basinal settings; early Frasnian to early Famennian
FRASNIAN AND FAMESNIAN	Dcp	SPARKE CONGLOMERATE: boulder, cobble, and pebble conglomerate; poorly exposed; interbedded locally with PILLARA LIMESTONE and VIRGIN HILLS FORMATION; platform and basinal settings; late Frasnian
	Dcps	Sheared limestone and conglomerate, marble; central Sparke Range
ORDOVICIAN	OP	Dolomite, limestone, sandstone and shale; marine (section only)
	q	Quartz veins, of various ages; youngest generation postdates Cambrian units

CAMBRIAN	Ea	ANTRIM PLATEAU VOLCANICS: dark grey, vesicular and amygdaloidal basalt; may be deeply weathered
	Ej	LALLY CONGLOMERATE: fine- to coarse-grained quartz wacke sandstone, cobble conglomerate, feldspathic sandstone, and quartz sandstone

Louisa Downs Group	Etl	LUBBOCK FORMATION: grey, green, or purple siltstone and shale; interbedded with fine- and medium-grained quartz wacke
	Etj	TEAN FORMATION: feldspathic sandstone, quartz wacke, quartz sandstone, pebble conglomerate, siltstone, and shale; minor dolomite
	Etj	McALLY SHALE: black, grey, and green shale; minor siltstone and fine- to very fine-grained sandstone
	Ety	YURABI FORMATION: flaggy to blocky quartz sandstone and feldspathic sandstone; grey or purple siltstone, shale, dolomitic siltstone, and sandy dolomite
	Ete	EGAN FORMATION: tillite, arkose, dolomite, limestone, sandstone, siltstone, and shale

Kunlind Group	Enb	MT BERTRAM SANDSTONE: purple to grey, fine-grained micaceous and ferruginous sandstone, and purple fissile shale and siltstone
	Enw	WIRARA FORMATION: green to grey laminated shale and siltstone, purple siltstone, and green and purple sandstone
	Ens	STEIN FORMATION: purple, coarse-grained greywacke
	Enl	LANDRIGAN TILLITE: tillite, purple or cream laminated dolomite, sandstone, and siltstone

Glidden Group	Ec	COLOMBO SANDSTONE: massive, medium-grained quartz sandstone, and sandy chert-pebble breccia
	Egx	MADDOX FORMATION: black shale, black micaceous siltstone, purple-grey feldspathic sandstone, and purple siltstone

Hills Creek Group	Ecl	FORMAN SANDSTONE: white, massive to blocky, fine-grained quartz sandstone
	Egm	MATHESON FORMATION: laminated claystone, dark shale and siltstone, quartz wacke, ferruginous feldspathic sandstone, and quartz sandstone
	Ege	HARMS SANDSTONE: medium- and coarse-grained quartz sandstone, and purple shale and siltstone

Crowhurst Group	Erh	HIBBERSON DOLOMITE: massive dolomite, may be stromatolitic; minor sandy oolitic dolomite breccia, and dolomitic sandstone
	Erp	COLLETT SILTSTONE: purple and green siltstone; minor white, silty dolomite, and pyritic cherty siltstone
	Erj	LIGA SHALE: green shale; minor micaceous siltstone and silty sandstone
	Erk	HILFORDY FORMATION: quartz sandstone, ferruginous siltstone, and shale

1805–1790 Ma	d	Dolerite dyke
	po	Andesite to rhyolite porphyry dyke; coarse phenocrysts of K-feldspar, quartz and plagioclase
Egss	Egss	SANS SOU MONZOGRANITE: medium- to fine-grained biotite monzogranite; scattered fine-grained mafic inclusions
	Egea	EASTMANS GRANITE: medium- to coarse-grained, leucocratic biotite syenogranite and monzogranite

CANNING BASIN

ORD BASIN

LOUISA BASIN

GLIDDEN BASIN

CROWHURST BASIN

PROTEROZOIC

Kimberley Group	Bk	HART DOLERITE: dark grey dolerite	
	EKpu	PENTECOST SANDSTONE: Upper unit: medium- to coarse-grained quartz sandstone and pebbly quartz sandstone	
	EKpm	Middle unit: white, fine- to coarse-grained quartz sandstone, purple fine-grained sandstone, and purple siltstone and shale	
	EKpl	Lower unit: quartz sandstone and siltstone	
	EKe	ELGEE SILTSTONE: red-brown and grey siltstone and shale; minor quartz sandstone	
	EKet	Teronis Member: stromatolitic dolomite, sandy dolomite, oolitic dolomite, shale, micaceous siltstone, and fine-grained sandstone	
	EKw	WARTON SANDSTONE: white to purple, massive to blocky quartz sandstone; minor feldspathic sandstone	
	EKc	CARSON VOLCANICS: green to black basalt, amygdaloidal basalt and basaltic volcanoclastic rocks, interbedded quartz sandstone, feldspathic sandstone, laminated siltstone, and mudstone	
	EKcs	Pale yellow-brown, laminated to massive quartz- and feldspar-rich sandstone, and siltstone	
	EKl	KING LEOPOLD SANDSTONE: white to pale-brown, medium- to coarse-grained quartz sandstone, and pebbly quartz sandstone	
Speewah Group	Et	MOOLA BULLA FORMATION: lithic quartz sandstone and granule to pebble conglomerate; minor argillite	
	ESb	BEDFORD SANDSTONE: white to pale brown, well sorted quartz sandstone	
	ESl	LUMAN SILTSTONE: purple-grey shale, grey micaceous siltstone, silty shale, and fine-grained sandstone	
	ESo	LANSDOWNE ARKOSE: buff to pale pink, medium- to coarse-grained arkose and feldspathic sandstone, granule and pebble conglomerate, and silty shale	
	ESv	VALENTINE SILTSTONE: purple, grey, and brown finely laminated shale and siltstone	
	ESt	TUNGANNEY FORMATION: buff to pale-grey feldspathic sandstone, siltstone, shale, and quartz sandstone	
	ESn	ODONNELL FORMATION: olive green to fawn micaceous silty shale; coarse-grained quartz sandstone; granule- to pebble-conglomerate at base	
	Sally Downs supersuite	EgSch	MOUNT CHRISTINE GRANITOID: coarsely porphyritic to medium-grained biotite monzogranite
		EgSdl	DILLINGER MONZOGRANITE: medium- to fine-grained, locally porphyritic, leucocratic biotite monzogranite; minor syenogranite; rich in mafic inclusions adjacent to contacts with gabbro
		EgSgy	GRIMPY MONZOGRANITE: weakly porphyritic fine-grained biotite monzogranite
EgSmf		MOUNT FAIRBAIRN MONZOGRANITE: coarse- to fine-grained, locally porphyritic, partly recrystallized biotite monzogranite; associated with gabbro; rich in mafic inclusions locally	
EgSt		LOADSTONE MONZOGRANITE: weakly porphyritic biotite monzogranite and syenogranite; minor microgranodiorite	
EgSx		Granitoid rocks rich in angular to flattened inclusions of mafic rock	
EgSo		Undivided porphyritic to even-grained, medium- to fine-grained gabbro, quartz gabbro, and tonalite; extensively veined by granitoid rocks locally	
EgSe		EMULL GABBRO: medium- to fine-grained gabbro, quartz gabbro, and tonalite; extensively veined by the DILLINGER MONZOGRANITE, apatite, quartz-feldspar porphyry, and pegmatite	
Amhurst Metamorphics		EmAgn	Inclusion-rich, biotite-hornblende granodiorite gneiss, and garnet-cordierite-andalusite-sillimanite-biotite monzogranitic gneiss; inclusions of metasedimentary and mafic igneous rocks; metamorphosed possible equivalent of NEVILLE GRANODIORITE
		EmAm	Medium- to high-grade metasedimentary rock, and granitoid rock; quartz-muscovite-biotite-andalusite-sillimanite-garnet-cordierite-K-feldspar-plagioclase schist, granulites, and migmatite; metamorphosed equivalent of the MARBOO FORMATION
	Paperbark supersuite	EgPfg	LONG HOLE GRANITE: foliated, coarse-grained, porphyritic monzogranite and augen gneiss
		EgPcy	CHANEYS GRANITE: foliated biotite monzogranite and granodiorite
EgPmu		MULKERRINS GRANITE: coarse- to medium-grained biotite syenogranite and monzogranite	
EgPli		LOUISA MONZOGRANITE: coarsely porphyritic syenogranite and monzogranite	
EgPbr		BLACK ROCK GRANODIORITE: biotite-hornblende granodiorite and tonalite	
EgPgr		LITTLE GOLD RIVER MICROGRANODIORITE: microgranodiorite, (micro quartz diorite), and orthopyroxene-bearing andesite porphyry	
EgPfm		GNEWING GRANODIORITE: coarsely porphyritic biotite-hornblende granodiorite and tonalite; contains mafic inclusions	
EgPnv		NEVILLE GRANODIORITE: medium- to fine-grained biotite granodiorite and tonalite; minor monzogranite; metasedimentary rock inclusions are abundant adjacent to contacts with metasedimentary rock	
Titchener Metamorphics		EmTh	Quartz-muscovite-biotite-cordierite hornfels
		EmTm	Migmatitic quartz-plagioclase-muscovite-biotite(-sillimanite)-andalusite-cordierite(-chlorite) pelite, and amphibolite
Halls Creek Group	Ebw	WOODWARD DOLERITE: fine- to medium-grained metadolomite	
	Ebh	Migmatitic quartz-K-feldspar-biotite-cordierite-sillimanite pelitic hornfels; locally retrogressed to quartz-muscovite-biotite-chlorite(-sillimanite)-andalusite pelitic schist	
	Eho	OLYMPIO FORMATION: metamorphosed, low- to medium-grade, thin- to medium-bedded phyllite, quartz-muscovite(-biotite)-chlorite-andalusite-garnet pelitic rocks, and turbiditic quartz wacke, greywacke, and arkosic psammitic rocks	
	Ehqa	Thick-bedded, metamorphosed, turbiditic quartzitic sandstone; minor pelite	
	Ehob	Butchers Gully Member: metamorphosed and altered trachytic and trachyandesitic volcanic and volcanoclastic rock; chloritic with a carbonate-rich matrix; ferruginous chert	
	Ehobc	Metachert	
	Ehk	BISCAY FORMATION: metamorphosed basaltic volcanic and volcanoclastic rock; minor dolerite sills and interbedded pelite, carbonate and chert lenses	
	Ehls	Metamorphosed interbedded sandstone and pelite	
	Ehs	SAUNDERS CREEK FORMATION: Metamorphosed quartz sandstone, feldspathic sandstone, and quartz pebble conglomerate	
	1810 Ma	Egu	JUNDA MICROGRANITE: partly recrystallized, fine-grained leucocratic monzogranite
Eges		ESAW MONZOGRANITE: partly recrystallized, garnet-muscovite granite	
1880 Ma	Evd	DING DONG DOWNS VOLCANICS: amygdaloidal metabasalt and amphibolite; metagabbro and meta-anorthosite; cordierite-bearing metamorphosed pelite	

Hooper Complex and Lamboo Complex – western zone

Lamboo Complex – central zone

Lamboo Complex – eastern zone

KIMBERLEY BASIN

MOOLA BULLA BASIN

SPEEWAH BASIN

Bow River batholith

Bow River batholith

Hooper Complex and Lamboo Complex – western zone

Lamboo Complex – central zone

Lamboo Complex – eastern zone

HOOPER AND LAMBOO COMPLEXES