

PHANEROZOIC

CENOZOIC

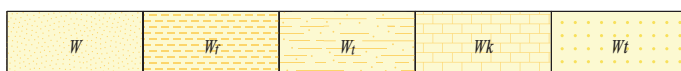
QUATERNARY



Alluvial units
A_u Superficial channel
A_v Alluvial fan



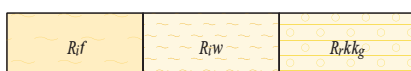
Colluvial units
C_{rg} Colluvium; dominantly quartzofeldspathic materials
C_q Colluvium; dominantly quartz



Sheetwash units
W Clay, silt, and sand in sheetwash fans
W_r Sheetwash fan; very gently inclined landform (less than 1 degree slope); extremely low relief
W_t Sheetwash plain with tiger bush pattern
W_k Sheetwash with carbonate material
W_l Sheetwash with lithic fragments



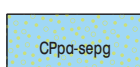
Eolian units
E_d Eolian dunefield
E_r Eolian sandplain



Residual or relict units
R_{if} In situ weathered rock; ferruginous
R_{iw} In situ weathered rock
R_{rkk} Groundwater calcrete; locally forms low mounds; nodular to massive; commonly with alternating layers of carbonate and chalcedony

PALEOZOIC

CARBONIFEROUS-
PERMIAN
CAMBRIAN



PATERSON FORMATION: conglomerate (including diamictite), sandstone, and siltstone; largely glaciogene

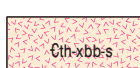


TABLE HILL VOLCANICS: basalt (in part vesicular and/or amygdaloidal) in multiple flows; minor interbedded sandstone and siltstone

Petermann Orogeny (c. 570–530 Ma¹)



LUPTON FORMATION: diamictite and sandstone

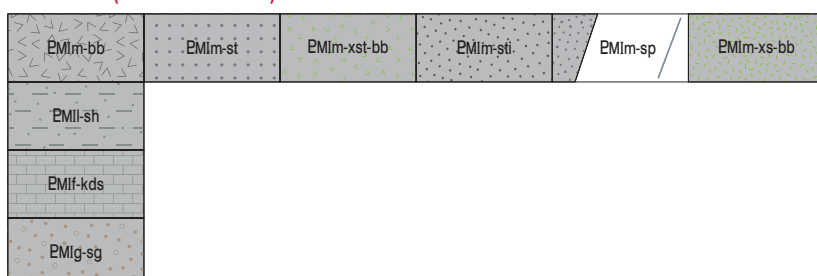


Buldya Group
EBU-xs-k Undivided sedimentary rocks; sandstone, siltstone, shale, dolomite, limestone, evaporites (halite, gypsum, anhydrite) in subsurface and diapirs
EBUw-stz **TOWNSEND QUARZITE:** laminated to very thickly bedded, well sorted, medium- to coarse-grained quartz arenite and feldspathic arenite; minor conglomerate and shale beds; medium- to large-scale cross-bedding; commonly intensely silicified
EBUw-sg Cobble and boulder conglomerate, lesser sandstone; poorly exposed



Eod Dolerite dyke, sill, or plug; fine- to medium-grained dolerite and gabbro
Ezq Massive, coarse-grained quartz vein

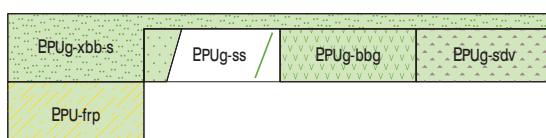
Giles Event (1085–1040 Ma^{1,2,3})



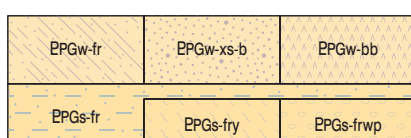
Mission Group
MILESIA FORMATION
EMIm-bb Basalt and basaltic andesite; strongly vesicular and amygdaloidal, with well-developed autoclastic brecciation including peperite; minor interlayered sandstone and conglomerate; epidotized
EMIm-st Poorly sorted, fine- to coarse-grained sandstone; minor beds with rare rounded pebbles to 5 cm, and conglomerate units with rounded pebbles to 10 cm
EMIm-xst-bb Fine-grained, pale pink, laminated sandstone with pervasive hematite staining; interlayered with amygdaloidal basalt; local peperitic contacts
EMIm-sti Coarse-grained, red sandstone; locally interbedded with pebble conglomerate
EMIm-sp Conglomerate; subangular to subrounded granules and pebbles of quartz, pinkish quartzite, and epidotitic basalt; interbedded with faintly laminated to thinly bedded ferruginous sandstone
EMIm-xs-bb Interlayered, red-brown, ripple-bedded sandstone, pebble conglomerate and amygdaloidal basalt; local peperitic contacts
LILIAN FORMATION: shale; red to olive-green; minor sandstone, dolomite, chert, microbialite, basalt, and conglomerate
EMIl-sh **FRANK SCOTT FORMATION:** intercalated limestone, stromatolitic limestone, dolomitic limestone, shale, and ripple cross-laminated sandstone
EMIf-kds **GAMMINAH CONGLOMERATE:** matrix-supported pebble to cobble conglomerate; basalt and rhyolite clasts up to 20 cm; local planar- and cross-bedding; thin sandstone interlayers
EMIg-sg



Bentley Supergroup
Cassidy Group
ECAM-bb **MILLER BASALT:** basalt and basaltic andesite, with vesicular and amygdaloidal flow tops and local flow-top breccia; minor quartz-rich mudstone to sandstone interbeds; epidotized
ECAM-xbb-sg Interlayered massive to vesicular and amygdaloidal basalt and basaltic andesite, and volcanolithic conglomerate and sandstone
ECAh-frp **HILDA RHYOLITE:** porphyritic rhyolite with minor trachyte and dacite; massive to flow-banded and locally spherulitic vitric lavas; subhedral to euhedral alkali-feldspar phenocrysts; minor plagioclase and embayed, bipyramidal quartz phenocrysts
ECAh-frpa Microcrystalline, moderately crystal-rich, flow-banded, autobrecciated rhyolite; up to 20% phenocrysts of subhedral to euhedral feldspar up to 8 mm and sub-rounded quartz
ECAw-xbb-s **WARUBUYU BASALT:** massive to amygdaloidal basalt and basaltic andesite, interlayered with volcanolithic mudstone, siltstone, ripple cross-laminated sandstone, conglomerate, and laminated microbialite; local hyaloclastite; epidotized
ECAw-sf Fine-grained, laminated siltstone and sandstone; locally with ripple marks or laminar cross-bedding
ECAT-frp **THOMAS RHYOLITE:** porphyritic rhyolite with minor trachyte and dacite; massive to flow-banded and locally spherulitic vitric lavas; subhedral to euhedral alkali-feldspar phenocrysts; locally abundant fiamme
ECAg-bbg **GURGDI BASALT:** basalt with vesicular and amygdaloidal flow tops; epidotized
ECA-sl Fine-grained siltstone to sandstone
ECAo-frp **GOMBUGURRA RHYOLITE:** microcrystalline, feldspar-porphyritic, flow-banded rhyolite containing up to 7% euhedral feldspar phenocrysts up to 3 mm in size; locally spherulitic
ECA-sf Fine-grained, thinly interbedded, feldspar-rich volcaniclastic sandstone and siltstone
ECAu-frp **WURURU RHYOLITE:** porphyritic rhyolite; massive to flow banded



Pussy Cat Group
EPUg-xbb-s **GLYDE FORMATION:** typically vesicular and amygdaloidal basalt, and minor basaltic andesite; interbedded with fine- to coarse-grained siliciclastic rocks; epidotized
EPUg-ss Medium- to fine-grained siliciclastic rocks; rare calc-silicate rocks, evaporite horizons and microbialites
EPUg-bbg Vesicular and amygdaloidal basalt, basaltic andesite, and andesite; locally plagioclase porphyritic; epidotized
EPUg-sdv Diamictite; subrounded to angular, mafic to felsic volcanic clasts, in poorly sorted, siltstone to sandstone matrix
EPU-frp Quartz-feldspar-porphyritic rhyolite; subvolcanic intrusion; rounded quartz and alkali-feldspar phenocrysts up to 8 mm; fine-grained micrographic to felsitic groundmass



Mount Paigra Group
MOUNT WAUGH FORMATION
EPGw-fr Rhyolite; typically flow banded and sparsely quartz- and feldspar-phyrlic; locally abundant fiamme
EPGw-xs-b Siliciclastic rocks, including diamictite, conglomerate, sandstone, and siltstone; interbedded with amygdaloidal basalt
EPGw-bb Amygdaloidal basalt, with quartz-filled amygdaloids locally 5 mm in size
EPGs-fr **SCAMP FORMATION:** rhyolite; possibly lava flows and pyroclastic rocks, but may include subvolcanic intrusions; typically shows a fine- to coarse-grained granofelsic texture, indicating weak to moderate recrystallization
EPGs-fry Rhyolite, possibly lava flows and pyroclastic rocks; typically shows a fine-grained granoblastic texture, indicating weak recrystallization; relict flow banding, spherulites, and fiamme; locally contains accessory garnet
EPGs-frwp Very fine grained to microcrystalline, spherulitic, pumiceous, feldspar-porphyritic rhyolite; locally with eutaxitic textures or rheomorphic flow bands



EWK-od Dolerite sill or plug; fine- to medium-grained dolerite, and gabbro



EWK-g Granitic rock, undivided
EWK-ge Fine- to medium-grained quartz syenite; contains K-feldspar phenocrysts up to 5 cm; locally with rapakivi texture

MESOPROTEROZOIC

PROTEROZOIC

CANNING BASIN

OFFICER BASIN

BENTLEY BASIN

c. 1057 Ma

c. 1065 Ma

1071–1047 Ma

c. 1065 Ma

1077–1063 Ma

1078–1062 Ma

Bentley Supergroup

Cassidy Group

Pussy Cat Group

Mount Paigra Group

Warakurna Supersuite