

PHANEROZOIC

CAINOZOIC

QUATERNARY



Qhms Shelly sand in coastal dunes and old beach deposits; contains *Anadara granosa*  
 Qhmu Silt and mud in supratidal to intertidal flats and lagoons



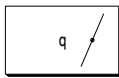
Qaa Alluvium—sand and gravel in rivers and creeks; clay, silt, and sand in channels on floodplains  
 Qal Alluvial sand and gravel in levees and sandbanks  
 Qac Claypan deposits on floodplains  
 Qao Alluvial sand, silt, and clay in floodplains; overbank deposits  
 Qaac Alluvial sand, silt, and clay; mixed floodplain deposits (Qao) characterized by numerous small claypans  
 Qab Alluvial sand, silt, and clay in floodplains, with gilgai surface in areas of expansive clay  
 Qw Sheetwash—sand, silt, and clay in distal outwash fans  
 Qws Quartzofeldspathic sand  
 Qc Colluvium—sand, silt, and gravel in outwash fans and scree  
 Qs Eolian sand—red-yellow, wind-blown sand; local ridges



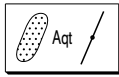
Czrk Calcrete—massive, nodular, and cavernous limestone, variably silicified; residual origin  
 Czrf Ferricrete—includes ferruginous and pisolitic ironstone on lateritic surfaces  
 Czru Siliceous caprock over ultramafic rock  
 Czrz Silcrete and massive nodular silica



d Dolerite and gabbro dykes; interpreted from aeromagnetic data where dashed

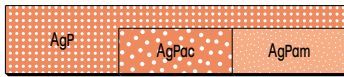


q Quartz vein

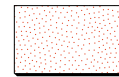


Aqt Quartz-tourmaline vein or replacement tourmalinite

c. 2945 Ma



AgP **PORTREE GRANITOID COMPLEX:** alkali granite; metamorphosed (not shown on map)  
 AgPac Alkali granite, coarse-grained; massive  
 AgPam Alkali granite, medium-grained; pyroxene-bearing; foliated to massive

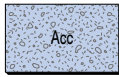


Contact metamorphic rock; abundant porphyroblasts of andalusite, cordierite, and/or garnet; related to intrusions of **PORTREE GRANITOID COMPLEX** and **PEAWAH GRANODIORITE**

c. 2950 Ma



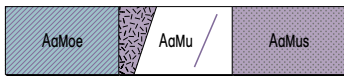
Agpe **PEAWAH GRANODIORITE:** metamorphosed medium- to coarse-grained, hornblende-biotite bearing granodiorite and tonalite; mesocratic  
 Agpes Seriate to porphyritic (plagioclase) diorite  
 Agpee Medium- to coarse-grained equigranular diorite



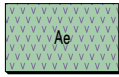
Acc Massive, grey chert; metamorphosed



Aut Talc-carbonate schist; after peridotite

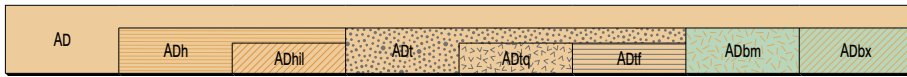


**Millindinna Intrusion**  
 AaMoe Melanogabbro and pyroxenite; metamorphosed  
 AaMu Ultramafic schist, tremolite- and serpentine-rich schist, and serpentinite after peridotite; includes minor metachert, metasedimentary rock, and serpentinized high-Mg basalt  
 AaMus Serpentine and serpentine-actinolite schist; after peridotite



Ae **LOUDEN VOLCANICS:** undifferentiated metamorphosed basalt and high-Mg basalt; contemporaneous with part of the De Grey Group (not shown on map)

> 2970 Ma

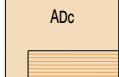


AD Unassigned; fine- to coarse-grained clastic rocks; minor high-Mg basalt flows; metamorphosed; appears to be stratigraphically transitional between the **CONSTANTINE SANDSTONE** and **MALLINA FORMATION**  
 ADh Laminated shale; includes minor beds of poorly sorted subarkose  
 ADhil Laminated shale and siltstone, locally ferruginous and/or chlorite-rich; includes layers of ironstone, chlorite-quartz schist, chert, and wacke  
 ADt Turbiditic wacke; medium- to coarse-grained; abundant chert clasts; local graded units; minor pebble beds and shale  
 ADtq Turbiditic wacke, locally subarkosic; fine- to coarse-grained; abundant chert clasts; well developed graded units; minor conglomerate and pebble beds  
 ADtf Shale, siltstone, and wacke, with layers of feldspar-(hornblende) porphyry  
 ADbm High-Mg basalt; locally with pyroxene spinifex texture  
 ADbx High-Mg basalt interleaved with ironstone, shale, and wacke

< 3000 Ma



ADm **MALLINA FORMATION:** interbedded shale, siltstone, and medium- to fine-grained wacke; minor layers of chert; metamorphosed

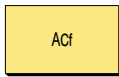


ADc **CONSTANTINE SANDSTONE:** undifferentiated coarse- to fine-grained clastic rocks; metamorphosed (not shown on map)



ADcs Poorly sorted subarkose and wacke; metamorphosed

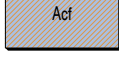
> 2950 Ma



Aci **MONS CUPRI VOLCANICS:** metamorphosed felsic volcanic and volcanoclastic rocks; rhyolite, dacite, and minor andesite



Agm Monzogranite, weakly to strongly foliated (not shown on map)



Aci Ferruginous chert and banded iron-formation

ARCHAEAN

Pilbara Supergroup

De Grey Group

Whim Creek Group