

REFERENCE

CAINOZOIC

QUATERNARY



Ora Lacustrine deposits—clay and silt; saline and gypsiferous
 Qrm Lacustrine and alluvial deposits—silt, sand and gravel in samphire flats adjacent to Ora
 Qrs Eolian deposits, minor colluvium and alluvium—white to yellow quartz sand, red-brown silty sand, in sheets and dunes marginal to salt lakes and calcrete
 Qrp Alluvium—clay, silt and sand in small fresh to brackish claypans



Qpv Alluvium—poorly sorted clay to pebble deposits; contains most present-day drainage; grades into Qqz
 Qps Eolian deposits—red and yellow quartz sand in dunes and sheets
 Qpk Eolian deposits—kopi, gypsum and clay in sheets and dunes marginal to salt lakes; calcareous in part
 Qpm Colluvium—quartz-feldspar sand and silt marginal to and overlying granitic rocks; grades into Qqc



Qqz Colluvium and alluvium—dark red to brown clay to sandy loam; contains hardpan and minor kankar
 Qqc Colluvium—poorly sorted deposits of rock and quartz fragments in loam; veneer on fresh and weathered bedrock
 Qqf Eluvium, minor alluvium and colluvium—clay and silt with ironstone pebble veneer; associated with Czl

TERTIARY



Czl Laterite—massive and pisolitic limonite deposits and cemented ironstone gravel
 Czb Siltcrete—sub-vitreous siliceous rock with angular quartz grains
 Czj Jasperoidal chalcodony and siliceous limonite deposits over ultramafic rocks
 Czk Calcrete—massive, nodular and sheet carbonate with minor chalcodony
 Czo Deeply weathered rock: kaolinized, subsequently ferruginized and silicified

PALAEZOIC

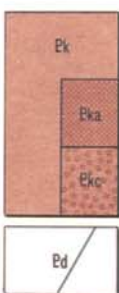
? LOWER PERMIAN



PATERSON FORMATION: poorly sorted sandstone, siltstone, claystone and conglomerate
 Poorly sorted sandstone, conglomerate, minor siltstone; dominantly fluvialite
 Claystone and siltstone; lacustrine
 Conglomerate, minor sandstone; glacialine, probably tillite

PROTEROZOIC

? LOWER PROTEROZOIC



KALUWEERIE CONGLOMERATE
 Lithic arenite—fine to coarse-grained, minor conglomerate; fluvialite
 Conglomerate—sub-angular to rounded clasts in a lithic arenite matrix; polymict; fluvialite
 Dyke: dolerite and quartz microdiorite



Dykes: p: pegmatite, g: microgranite, aplite, q: quartz

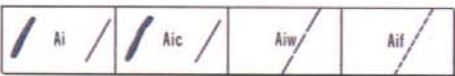


Ag Undivided granitic rock
 Agl Granite and adamellite; coarse-grained with sparse to abundant microcline megacrysts
 Agb Granite and adamellite; medium to coarse even-grained
 Age Granite and adamellite; fine to medium even-grained
 Agt Grandiorite and tonalite; medium to coarse-grained
 Agh Hornblende-quartz monzonite
 Ags Amphibole-pyroxene-quartz syenite; mafic minerals generally sodium rich
 Agg Undivided strongly foliated granitic rock

Agf etc. indicate strongly sheared or foliated varieties



An Undivided gneiss
 Ang Granitic gneiss; homogeneous; probably orthogneiss
 Anp Banded quartz-feldspar-biotite (-hornblende-clinopyroxene-garnet) gneiss; probably paragneiss
 Anh Mafic gneiss; quartz-hornblende (-garnet-clinopyroxene-plagioclase) gneiss of uncertain origin



Ai Undivided banded iron formation and related rocks; commonly ferruginized
 Aic Chert; banded, in part ferruginous; may be recrystallized to a granular quartzite
 Aiw Quartz-magnetite banded iron formation; black and white banded
 Aif Jaspilite; red and black banded



As Undivided metasedimentary rock
 Ass Black shale, mudstone, siliceous shale, minor greywacke; includes phyllite and andalusite schist
 Asg Greywacke and shale; shows graded bedding in places
 Ast Fine-grained, bedded quartz-chlorite-sericite-kaolin rocks; probably volcanoclastic; generally schistose
 Asc Conglomerate, polymictic with schistose arkosic, mafic or ultramafic matrix
 Aso Conglomerate, consisting of granite boulders in an arkosic matrix
 Asa Arkose; fine to medium-grained arkosic arenite; rare pebbles
 Asm Mafic and ultramafic metasediments; quartz-amphibole-plagioclase and quartz-amphibole-chlorite-talc rocks; schistose and banded



Quartz-feldspar porphyry in sills, dykes and irregular bodies



Af Undivided felsic volcanic rocks
 Afi Extrusive rhyolite to dacite; fine-grained to aphanitic; generally flow banded; includes fine-grained to aphanitic tuff
 Afx Fragmental rocks; crystal and lithic tuff with some flow banding; minor bedded volcanoclastic rocks
 Afv Vent agglomerate; contains blocks of Afi and Afx in a matrix similar to Afx
 Afs Strongly schistose felsic volcanic rocks; mostly fine to medium-grained



Mafelsic extrusive rocks; fine-grained, altered plagioclase-amphibole-quartz rocks; probably meta-andesite



Ad Mafic intrusive rocks; medium to coarse-grained metamorphosed dolerite and gabbro
 Adp Similar to Ad, but with phenocrysts of altered feldspar
 Adh Amphibolite and mafic hornfels; coarse-grained; contact metamorphosed Ad
 Adja Anorthositic gabbro
 AdjI Layered gabbro with 2-10 m banding due to varying proportions of amphibole and plagioclase
 AdjQ Quartz gabbro
 AdjT Tonalite, quartz diorite and quartz gabbro; commonly contains garnet

Components of composite gabbro body at Kathleen Valley



Ab Mafic extrusive rocks; fine-grained, locally vesicular and porphyritic; metamorphosed tholeiitic basalt
 Abi Similar to Ab, but with pillow structures
 Abk Similar to Ab, but strongly carbonated
 Aba Amphibolite; fine-grained, with strong penetrative metamorphic foliation
 Abh Mafic hornfels; contact metamorphosed Ab



Au Undivided ultramafic rock
 Aup Serpentine after coarse-grained olivine-rich ultramafic rock; commonly exhibits relict cumulus texture
 Aus Serpentine after fine-grained olivine-rich ultramafic rock; commonly exhibits spinifex texture; minor Aup
 Aue Altered ultramafic rocks; talc-carbonate-chlorite-serpentine assemblages; schistose
 Aur Altered mafic to ultramafic rocks; tremolite-actinolite-chlorite assemblages; includes high magnesium basalt

ARCHAEAN

Regional metamorphism reaches upper amphibolite facies

Regional metamorphism ranges from prehnite-pumpellyite facies to amphibolite facies