

C	Gto	CF	Cgp	W	Wf	Wg
A	A	L <sub>gk</sub>	L <sub>m</sub>	L <sub>p</sub>	S	

Rca	Rcau	Rf	Rca	Rf	Rg	Rf
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**Colluvial units**  
C Colluvium derived from different rock types; includes gravel, sand, and silt  
Gto Talus from banded iron-formation and chert, locally cemented  
CF Ferruginous gravel and reworked ferruginous duricrust  
Cgp Quartzitic gravel, sand, and silt commonly derived from granitic rock and associated weathering products

**Sheetwash units**  
W Clay, silt, and sand in extensive fans; local ferruginous gravel  
Wf Clay, silt, and sand with abundant ferruginous grit on shelf/hood fan  
Wg Clay, silt, and sand sheetwash deposits with abundant quartz-vein debris

**Alluvial units**  
A Clay, silt, sand, and gravel in channels and on floodplains  
A Alluvial fan deposits; includes gravel, sand and silt

**Lacustrine units**  
Lgk Bedded carbonate, silt, and clay deposits in shallow lakes adjacent to streams and rivers  
Lm Mixed dunes, evaporite, and alluvial deposits, typically adjacent to playa lakes  
Lp Saline and gypsumiferous evaporite deposits, clay, silt, and sand in playa lakes

**Sandplain unit**  
S Alluvial fan deposits; includes gravel, sand, and silt

**Residual or relict units**  
Rca Weathered rock dominated by kaolin and quartz; protolith uncertain  
Rcau Magnetite derived from in situ weathering of ultramafic rocks  
Rf Ferruginous duricrust, massive to blocky, includes iron-cemented reworked products  
Rca Silica caprock over ultramafic rock; local chalcidony and chrysose  
Rf Residual sand and minor gravel derived from ferruginous duricrust  
Rg Quartzitic sand, commonly over granite  
Rf Yellow sand with minor psillitic lenticles, ferruginized silt, and clay; common on low plateaus associated with weathered granite

**Barramundi Group**  
1084-1047 Ma  
Mamba Moorn Warrakurna Supersuite  
1210 Ma  
Dolerite dykes  
BW-od Dolerite sill or plug; fine- to medium-grained dolerite, and gabbro  
EMMU-od Dolerite and gabbro dykes  
EMMU-g Dolerite to leucogabbroite dykes, up to 40 m wide and locally with orthopyroxene cumulate crystals up to 7 mm; locally microdolerite  
Eod Dolerite dyke, sill, or plug; fine- to medium-grained dolerite and gabbro  
Eodh Hornblende dolerite dyke with fine-grained margins; locally hornblende porphyritic; metamorphosed  
zq Quartz vein or pod; massive, crystalline, or brecciated; age uncertain

**Walgama Supersuite**  
2647-2600 Ma  
2626 Ma  
ABRG-gp Pegmatite with granophytic intergrowths  
ABRG-gmp K-feldspar porphyritic to megacrystic monzonite; locally with biotite up to 10%  
ABRG-gn Monzonite, locally rich in muscovite and biotite; predominantly with equigranular texture and locally K-feldspar porphyritic; includes deeply weathered rock  
ABRG-gne Equigranular monzonite with 4-10 mm grain size  
ABRG-gm-mgru Monzonite and porphyritic monzonite with abundant, decimeter-scale xenoliths of monzonitic gneiss with K-feldspar augen  
ABRW-gmy WANGATA MONZONITE. Coarse-grained, undeformed monzonite with distinctive igneous layering defined by gradational variation in the modal abundance of biotite and K-feldspar (0.5 to 3 m scale); K-feldspar up to 30 mm long; metamorphosed

**AgY** Granitic rock, univided; metamorphosed  
**AgmY** Monzonite, common biotite and rare local hornblende; minor granodiorite and syenogranite; fine to coarse grained; equigranular to porphyritic; massive to weakly foliated; metamorphosed  
**AgmY** Porphyritic monzonite; fine to coarse grained with feldspar megacrysts; locally seriate; metamorphosed

AmbyYO	AmwYO	AmwS YO	AmoYO	AmoS YO	Amog YO	AmogS YO
AmbYO	AmbaYO	AmbaYO	Amsu-mg YO	Amsu YO	Amsu YO	Amsu YO
Asb YO	Asb YO	Asb YO	Acob YO	Acob YO		
Afo-b YO	Aod YO	Aog YO	Aum YO			
Abx YO	Abd YO	Abw YO	Ala YO	Aux YO	Aup YO	

AmbyYO Metamorphosed banded iron-formation and minor banded chert; metamorphosed  
AmwYO Amphibolite derived from mafic volcanic and intrusive rocks; locally schistose; may include metamorphosed banded iron-formation  
AmwS YO Strongly foliated amphibolite and amphibolite schist; fine to medium grained; commonly linedated  
AmoYO Metadolomite; locally amphibolitic  
AmoS YO Metadolomite; schistose; locally amphibolitic  
Amog YO Metagabbro; typically chlorite- and/or amphibole-rich with local preservation of relict igneous texture; includes minor metapsammite and metabasalt; locally strongly sheared  
AmogS YO Strongly foliated metagabbro  
AmbYO Amphibolite, fine to medium grained; typically foliated  
AmbaYO Fine-grained schist derived from basalt; includes amphibole-chlorite assemblages; local metagabbro and ultramafic schist  
Amsu-mg YO Mafic schist derived from fine-grained mafic rocks  
Amsu YO Ultramafic schist interfolded with metagabbro (section only)  
Amsu YO Ultramafic schist, includes talc-tremolite-chlorite schist, and minor serpentine and mafic schist  
Amsu YO Tremolite-chlorite (tal) schist; includes minor metamorphosed komatiitic basalt, metapsammite, and cumulate-textured zones  
Asb YO Sedimentary rock and felsic rock, with minor chert; commonly deeply weathered  
Asb YO Sedimentary and basaltic rocks, with minor chert and banded iron-formation; metamorphosed; commonly deeply weathered  
Acob YO Banded chert and ferruginous banded chert; includes minor banded iron-formation and quartzite; metamorphosed  
Aod YO Banded iron-formation and ferruginous banded chert; minor psillitic; metamorphosed  
Aog YO Andesite, basaltic andesite, and basalt; massive to weakly deformed; metamorphosed  
Aum YO Dolerite; minor basalt or gabbro; metamorphosed  
Afo-b YO Gabbro; minor pyroxenite or quartz gabbro; metamorphosed  
Aod YO Leucogabbroite grading into gabbroite, anorthosite, and leucoschist; locally showing very coarse grained ophitic texture; metamorphosed  
Aog YO Basalt, metamorphosed; includes some amphibole and amphibolite schist derived from tholeiitic basalt; may contain some metamorphosed high-Mg basalt, and minor mafic intrusive and volcanoclastic sedimentary rocks  
Amsu-mg YO Pillowed and spherulitic basalt; metamorphosed  
Amsu YO Viscidic basalt; locally basalt and/or pyroxene spinifex-textured basalt; metamorphosed  
Amsu YO Komatiitic basalt, commonly with pseudomorphed pyroxene-spinifex texture; metamorphosed and locally schistose; includes weakly metamorphosed tholeiitic basalt and minor mafic and ultramafic intrusive rocks  
Amsu YO Pyroxenite and minor gabbro; medium to coarse grained; metamorphosed  
Aup YO Peridotite, metamorphosed, commonly serpentinized

**Mogooocerra Formation**  
2735-2690 Ma  
2710 Ma  
AQLm-mhs Schistose pelite and psammite; includes metamorphosed shale and siltstone  
AQLm-mdo Metasedimentary rock, dominantly para-amphibolite  
AQLm-mq Quartzite and metamorphosed quartz-rich sandstone  
AQLm-bb Basalt; massive to weakly foliated; locally pillowed and/or vesicular; metamorphosed  
AQLm-f Felsic volcanic, volcanoclastic, and sedimentary rocks, univided; metamorphosed; commonly deeply weathered  
AQLm-ft Rhyolite and dacitic volcanic and volcanoclastic rocks; commonly bedded; weakly metamorphosed  
AQLm-sl Siltstone, mudstone, and minor sandstone; locally siltclotted; metamorphosed  
AQLm-si Sandstone, siltstone, and local conglomerate; metamorphosed  
AQLm-emb Conglomerate, metamorphosed and strongly foliated; contains mafic and granitic clasts  
AQLm-sc Conglomerate, pebbly sandstone, and sandstone; locally siltclotted; metamorphosed

**Yalgoo Formation**  
2745-2700 Ma  
2742 Ma  
APOy-xfo-bd Banded iron-formation and minor banded chert; metamorphosed  
APOy-xfo-bd Yalgoo Member: Andesite to basaltic andesite; typically glassy and with distinctive coarsely spherulitic flows; minor basalt and dacite; metamorphosed  
APOy-mts Felsic schist derived from andesitic to rhyolitic rocks; locally strongly deformed and sericitic-rich  
APOy-mts Andesitic volcanic breccia to sandstone; metamorphosed  
Siletstone Basalt Member  
APOy-mt Psammite, locally well bedded and cross-bedded; rare peperitic contacts with lava flows  
APOy-mbs Strongly schistose metapsammite, chlorite-rich  
APOy-xms-mbs Mafic schist interfolded with ultramafic schist, typically on a decimeter scale; locally strongly sheared  
APOy-mbs Mafic schist with minor ultramafic schist, actinolite-tremolite-chlorite assemblages; locally strongly sheared  
APOy-xbs-bzb Interfingery pillow lava and hyaloclastic; metamorphosed  
APOy-xbs-bzb Pyroxene spinifex-textured basalt interfolded with spherulitic basalt; includes minor glassy basaltic andesite  
APOy-xbs-bzb Flow; locally strongly cleaved; metamorphosed  
APOy-bbg Amygdaloidal basalt; quartz-filled vesicles 2-8 mm in diameter; typically massive groundmass, locally weakly plagioclase-porphyritic; metamorphosed  
APOy-bbb Pillowed and spherulitic basalt with spherules locally abundant and up to 15 mm in diameter; metamorphosed  
APOy-ib Massive to weakly pillowed basalt; locally weakly spherulitic; metamorphosed  
APOy-bs Pyroxene spinifex-textured basalt and minor basalt; locally spherulitic and/or pillowed; metamorphosed

**Carandima Komatiite Member**  
2749 Ma  
APOy-mus Tremolite-chlorite-actinolitic schist; locally strongly sheared  
APOy-mus Serpentine derived from volcanic rocks; locally strongly sheared  
APOy-ft Moderately well-bedded volcanoclastic sandstone to siltstone of rhyolite to dacite affinity; metamorphosed  
APOy-up Peridotite with relict olivine-pyroxene cumulate textures; typically strongly metamorphosed  
APOy-uk Fine-grained spinifex-textured komatiite; randomly oriented plates of serpentine after olivine up to 20 mm long; includes flows of pyroxene spinifex-textured basalt; metamorphosed  
APOy-bs Muga Luck Basalt Member: Pyroxene spinifex-textured basalt flows, minor interfolded sedimentary and volcanoclastic rocks; metamorphosed to serpentine  
APOy-xms-mbs Ultramafic schist interfolded with mafic schist, typically on a decimeter scale; locally strongly sheared  
APOy-muar Tremolite-chlorite-actinolitic schist; locally strongly sheared  
APOy-cb Banded iron-formation and minor banded chert; metamorphosed  
APOy-mts Moderately well-bedded sandstone and lesser finely laminated siltstone; metamorphosed  
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APOy-bbd Pillowed and spherulitic basalt with spherules locally abundant and up to 15 mm in diameter; metamorphosed  
APOy-bb Massive to weakly pillowed basalt; metamorphosed  
APOy-xbs-mbs Pyroxene spinifex-textured basalt; locally metamorphosed and schistose, interfolded with mafic schist (actinolite-tremolite-chlorite assemblages)  
APOy-xbs-mus Pyroxene spinifex-textured basalt, locally metamorphosed and schistose, interfolded with ultramafic schist (talc-tremolite-chlorite assemblages)  
APOy-xbs-og Pyroxene spinifex-textured basalt, interfolded with thin sills of granophyric to coarse-grained leucogabbro; metamorphosed

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**Walgama Supersuite**  
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AANr-mgg Porphyritic to equigranular; medium- to coarse-grained metagabbro; mafic foliation, in places with moderate solid-state overprint  
AANr-mgs Foliated biotite metagabbro; with local K-feldspar phenocrysts; common pegmatite veins  
AANr-jng-mbo Foliated, heterogeneous metagabbro with disseminated bands of amphibole xenoliths; commonly with abundant pegmatite  
**COURIN GRANODIORITE**  
AANr-mgll Migmatitic metabelle with stromatolite mesosomes of metatotalite and leucosomes of metazirconite; rare melanosomes of biotite metadiorite  
AANr-xmgnr-mggs Interfolded monzonitic augen gneiss and granodiorite schist on a metre-scale; locally linedated  
AANr-g Granitic sheets up to 10 m wide; locally with sheared margins; metamorphosed  
AANr-gnap Aplite dykes up to 5 m wide; locally quartz and feldspar porphyritic; metamorphosed  
AANr-gvr Pegmatite sheets, 1 to 8 m thick; metamorphosed  
AANr-gmvs Malacoite-rich pegmatite sheets typically 3 to 5 m thick; includes biotite-rich, beryl-tanzanite-bearing; rare sheets host blue lepidolite and Ta-Bi-Sn minerals; metamorphosed  
AANr-gme Equigranular monzonite with 4-10 mm grain size; includes regions with weakly-developed foliation; metamorphosed  
AANr-mgs Metagabbro; typically strongly schistose  
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AANr-mgi Migmatitic tonalite with stromatolite mesosomes of metatotalite and leucosomes of metazirconite; rare melanosomes of biotite metadiorite  
AANr-mgd Hornblende tonalite with grain size <8 mm; locally with a well-developed planar and linear fabric  
AANr-xmgnr-mggs Monzonitic augen gneiss and granodiorite schist interfolded on a metre-scale; locally linedated  
AANr-xmgs-modo Schistose metagabbro with abundant amphibole-clinoclase rafters  
**GOONETARRA GRANODIORITE**  
AANr-gme Equigranular monzonite to syenogranite; undeformed; locally with magmatic foliation  
AANr-mgs Foliated biotite metagabbro; with local K-feldspar phenocrysts  
AANr-mgm K-feldspar megacrystic biotite metagabbro; commonly strongly foliated  
AANr-mgh Fine-grained, layered biotite tonalite gneiss; includes crosscutting younger phases and pegmatites  
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2735-2690 Ma  
2710 Ma  
AQLm-mhs Schistose pelite and psammite; includes metamorphosed shale and siltstone  
AQLm-mdo Metasedimentary rock, dominantly para-amphibolite  
AQLm-mq Quartzite and metamorphosed quartz-rich sandstone  
AQLm-bb Basalt; massive to weakly foliated; locally pillowed and/or vesicular; metamorphosed  
AQLm-f Felsic volcanic, volcanoclastic, and sedimentary rocks, univided; metamorphosed; commonly deeply weathered  
AQLm-ft Rhyolite and dacitic volcanic and volcanoclastic rocks; commonly bedded; weakly metamorphosed  
AQLm-sl Siltstone, mudstone, and minor sandstone; locally siltclotted; metamorphosed  
AQLm-si Sandstone, siltstone, and local conglomerate; metamorphosed  
AQLm-emb Conglomerate, metamorphosed and strongly foliated; contains mafic and granitic clasts  
AQLm-sc Conglomerate, pebbly sandstone, and sandstone; locally siltclotted; metamorphosed

**Yalgoo Formation**  
2745-2700 Ma  
2742 Ma  
APOy-xfo-bd Banded iron-formation and minor banded chert; metamorphosed  
APOy-xfo-bd Yalgoo Member: Andesite to basaltic andesite; typically glassy and with distinctive coarsely spherulitic flows; minor basalt and dacite; metamorphosed  
APOy-mts Felsic schist derived from andesitic to rhyolitic rocks; locally strongly deformed and sericitic-rich  
APOy-mts Andesitic volcanic breccia to sandstone; metamorphosed  
Siletstone Basalt Member  
APOy-mt Psammite, locally well bedded and cross-bedded; rare peperitic contacts with lava flows  
APOy-mbs Strongly schistose metapsammite, chlorite-rich  
APOy-xms-mbs Mafic schist interfolded with ultramafic schist, typically on a decimeter scale; locally strongly sheared  
APOy-mbs Mafic schist with minor ultramafic schist, actinolite-tremolite-chlorite assemblages; locally strongly sheared  
APOy-xbs-bzb Interfingery pillow lava and hyaloclastic; metamorphosed  
APOy-xbs-bzb Pyroxene spinifex-textured basalt interfolded with spherulitic basalt; includes minor glassy basaltic andesite  
APOy-xbs-bzb Flow; locally strongly cleaved; metamorphosed  
APOy-bbg Amygdaloidal basalt; quartz-filled vesicles 2-8 mm in diameter; typically massive groundmass, locally weakly plagioclase-porphyritic; metamorphosed  
APOy-bbb Pillowed and spherulitic basalt with spherules locally abundant and up to 15 mm in diameter; metamorphosed  
APOy-ib Massive to weakly pillowed basalt; locally weakly spherulitic; metamorphosed  
APOy-bs Pyroxene spinifex-textured basalt and minor basalt; locally spherulitic and/or pillowed; metamorphosed

**Carandima Komatiite Member**  
2749 Ma  
APOy-mus Tremolite-chlorite-actinolitic schist; locally strongly sheared  
APOy-mus Serpentine derived from volcanic rocks; locally strongly sheared  
APOy-ft Moderately well-bedded volcanoclastic sandstone to siltstone of rhyolite to dacite affinity; metamorphosed  
APOy-up Peridotite with relict olivine-pyroxene cumulate textures; typically strongly metamorphosed  
APOy-uk Fine-grained spinifex-textured komatiite; randomly oriented plates of serpentine after olivine up to 20 mm long; includes flows of pyroxene spinifex-textured basalt; metamorphosed  
APOy-bs Muga Luck Basalt Member: Pyroxene spinifex-textured basalt flows, minor interfolded sedimentary and volcanoclastic rocks; metamorphosed to serpentine  
APOy-xms-mbs Ultramafic schist interfolded with mafic schist, typically on a decimeter scale; locally strongly sheared  
APOy-muar Tremolite-chlorite-actinolitic schist; locally strongly sheared  
APOy-cb Banded iron-formation and minor banded chert; metamorphosed  
APOy-mts Moderately well-bedded sandstone and lesser finely laminated siltstone; metamorphosed  
APOy-ft Moderately well-bedded volcanoclastic sandstone to siltstone of rhyolite to dacite affinity; metamorphosed  
APOy-bbd Pillowed and spherulitic basalt with spherules locally abundant and up to 15 mm in diameter; metamorphosed  
APOy-bb Massive to weakly pillowed basalt; metamorphosed  
APOy-xbs-mbs Pyroxene spinifex-textured basalt; locally metamorphosed and schistose, interfolded with mafic schist (actinolite-tremolite-chlorite assemblages)  
APOy-xbs-mus Pyroxene spinifex-textured basalt, locally metamorphosed and schistose, interfolded with ultramafic schist (talc-tremolite-chlorite assemblages)  
APOy-xbs-og Pyroxene spinifex-textured basalt, interfolded with thin sills of granophyric to coarse-grained leucogabbro; metamorphosed

ASDg-mgg	ASDg-mggb	ASDg-mggs	ASDg-gnop
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**Big Big Suite**  
2735-2690 Ma  
2710 Ma  
ASDg-mgg Metagabbro; typically moderately foliated and weakly schistose  
ASDg-mggb Coarse biotite metagabbro; locally schlieric and gneissic  
ASDg-mggs Schistose metagabbro; locally strongly sheared  
ASDg-gnop Fine-grained monzonite, commonly as dykes in greenstones; quartz-feldspar porphyritic to locally equigranular; locally schistose

AANr-mgg	AANr-mgs	AANr-jng-mbo	AANr-mgl	AANr-xmgnr-mggs	AANr-g	AANr-gnap	AANr-gvr	AANr-gmvs	AANr-gme	AANr-mgs	AANr-mgms	AANr-mgl	AANr-mgi	AANr-mgd	AANr-xmgnr-mggs	AANr-xmgs-modo
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**Rotthay Suite**  
2735-2690 Ma  
2710 Ma  
AANr-mgg Porphyritic to equigranular; medium- to coarse-grained metagabbro; mafic foliation, in places with moderate solid-state overprint  
AANr-mgs Foliated biotite metagabbro; with local K-feldspar phenocrysts; common pegmatite veins  
AANr-jng-mbo Foliated, heterogeneous metagabbro with disseminated bands of amphibole xenoliths; commonly with abundant pegmatite  
AANr-mgl Migmatitic metabelle with stromatolite mesosomes of metatotalite and leucosomes of metazirconite; rare melanosomes of biotite metadiorite  
AANr-xmgnr-mggs Interfolded monzonitic augen gneiss and granodiorite schist on a metre-scale; locally linedated  
AANr-g Granitic sheets up to 10 m wide; locally with sheared margins; metamorphosed  
AANr-gnap Aplite dykes up to 5 m wide; locally quartz and feldspar porphyritic; metamorphosed  
AANr-gvr Pegmatite sheets, 1 to 8 m thick; metamorphosed  
AANr-gmvs Malacoite-rich pegmatite sheets typically 3 to 5 m thick; includes biotite-rich, beryl-tanzanite-bearing; rare sheets host blue lepidolite and Ta-Bi-Sn minerals; metamorphosed  
AANr-gme Equigranular monzonite with 4-10 mm grain size; includes regions with weakly-developed foliation; metamorphosed  
AANr-mgs Metagabbro; typically strongly schistose  
AANr-mgms Schistose metagabbro; locally strongly sheared, foliated, and linedated  
AANr-mgl Metagabbro; locally with K-feldspar augen up to 20 mm; metamorphosed regions common  
AANr-mgi Migmatitic tonalite with stromatolite mesosomes of metatotalite and leucosomes of metazirconite; rare melanosomes of biotite metadiorite  
AANr-mgd Hornblende tonalite with grain size <8 mm; locally with a well-developed planar and linear fabric  
AANr-xmgnr-mggs Monzonitic augen gneiss and granodiorite schist interfolded on a metre-scale; locally linedated  
AANr-xmgs-modo Schistose metagabbro with abundant amphibole-clinoclase rafters  
**WARBADOO TONALITE**  
AANr-gme Equigranular monzonite to syenogranite; undeformed; locally with magmatic foliation  
AANr-mgs Foliated biotite metagabbro; with local K-feldspar phenocrysts  
AANr-mgm K-feldspar megacrystic biotite metagabbro; commonly strongly foliated  
AANr-mgh Fine-grained, layered biotite tonalite gneiss; includes crosscutting younger phases and pegmatites  
AANr-xmgnr-mgm Layered tonalite gneiss intruded by K-feldspar megacrystic biotite metagabbro

**Rotthay Suite**  
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