

## CHILDARA

GEOLOGICAL SURVEY OF SOUTH AUSTRALIA  
DEPARTMENT OF MINES ADELAIDE

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## REFERENCE

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Qha | Alluvial gravels, sands, silts and clays of modern drainage channels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Qhs | Aeolian dunes and sand spreads. Pale yellowish-brown and pale orange-brown quartz sands, with some gypsum.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Qhg | Aeolian gypsiferous dunes and flats, bordering playa lakes. White to pale grey sands and silts with soft crusts of gypsum.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Qhl | Lake deposits. Gypsiferous muds, clays and silts with gypsum crystals and halite crusts. Some aeolian quartz sand.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Qho | MOORNAABA SAND: Vegetated self dunes and sand spreads. Pale yellowish-brown, orange-brown and brownish quartz sands, with soft carbonates in places.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Qpo | WIABUNA FORMATION: Pale brownish calcareous silty sand, with soft earthy, rubby and nodular carbonates of the LOVECAY SOIL developed locally.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Qp  | ?Equivalent of the POORAKA FORMATION: Reddish-brown and dark yellowish-brown gravelly and gritty clays, silts and sands with soft earthy carbonates in the upper part. Rests on nodular and tabular calcrete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Ts  | Siltcrete: Hard, dense, nodular-weathering duricrust up to about 3 m thick, capping kaolinitised granite and Mesozoic Tertiary type, with angular to sub-rounded fragments of quartz in pale grey and brownish-grey cryptocrystalline siliceous matrix.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| J-K | Quartzose conglomerate and grit with kaolinitic matrix, capped by Tertiary siltcrete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| E-h | HILTABA GRANITE: Pink leucocratic granitic biotite granite and adamellite, locally porphyritic. Scattered apite and microgranite veins.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| E-g | ?GAWLER RANGE VOLCANICS<br>Reddish-brown porphyritic rhyolite dykes.<br>Reddish-brown porphyritic rhyolite dykes.<br>Up to about 100 m wide. Intrude layered volcanics.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| E-g | GAWLER RANGE VOLCANICS<br>YANTEA RHYODACITE: Reddish-brown porphyritic rhyodacite grading to dacite locally. Phenocrysts of pink K-feldspar and some of cream-coloured plagioclase up to about 10 mm long.<br>Disconformity<br>NICKULLA BASALT<br>BUNBURN DACITE: At base, dark purplish-grey, pale grey and purplish basaltic tuff and flow-banded porphyritic rhyodacite welded tuff. Overlain by dark greenish-grey dacite passing up into reddish-brown rhyolite. Below the NICKULLA BASALT west of Nickulla Dam, upper part of the rhyolite is lufuaceous and pumiceous.<br>WHEEPOL RHYOLITE (Eaw): Yellowish-brown weathered reddish-brown porphyritic rhyolite, grading to rhyolite locally. Phenocrysts of pink K-feldspar and rounded quartz. Rhyolite (Eagc). Yellowish-brown weathered rhyolite breccia, and cream and pale brownish flow-banded welded tuff (North of road from Lake Everard homestead to Childers outstation).<br>MANGARONGAH DACITE: Purplish-brown and purplish-grey porphyritic dacite, grading to rhyodacite. Many phenocrysts of cream-coloured plagioclase, partly replaced by chlorite and epidote. Upper part more rhyodacitic and vesicular in places.<br>CHILDERS DACITE: Reddish-brown, purplish-grey and greenish-grey dacite. Scattered felsic and aphanitic matrix. Grades to rhyolite upwards. Northeast of Childers outstation, dacite overlies dark greenish-grey basaltic andesite.<br>Unconformity<br>E-l<br>Foliated granitic gneiss SSE of Yarrabinda Hill and gneissic granite at Arcordaby Rockhole.<br>Unconformity<br>E-l<br>GLENLOTH GRANITE: Pink and cream foliated granite with pods and irregular bands of calc-silicate hornfels. |

## GEOLOGICAL BOUNDARY

OBSERVED

TUFF

FLOW BANDING

INCISED

FOLIATION

INCISED

JOINTING

TREND OBSERVED ON AERIAL PHOTOGRAPHY

GEOLOGICAL SECTION

MAIN ROAD

SECONDARY ROAD

TRACK

NATIONAL ROUTE NUMBER

RAILWAY (ABANDONED)

VERMIN PROOF FENCE

BOUNDARY FENCE

TRIANGULATION STATION

IDENTIFIED POINT

SPOT HEIGHT (APPROXIMATE)

CONTOUR (50 m INTERVAL)

EPHEMERAL STREAM

PLAYA LAKE

CLAYPAN, SALTPAN

BORE

WELL

DAM

TANK

ROCKHOLE

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