

REFERENCE

AQUIFER CHARACTERISTICS

- Surface aquifer - local aquifer, minor groundwater resources
- Sedimentary aquifer - intermediate to regional aquifer with heterogeneous porosity, major groundwater resources
- Sedimentary aquifers and local aquifer - minor or no groundwater resources
- Aquiclude - no groundwater resources

HYDROGEOLOGY

QUATERNARY

- Qa Alluvial and lacustrine sediments
- Qb Dune limestone - eolian calcarenite
- Qc Quartz sand in flood dunes, overlies weathered basement or Mesozoic sediments
- Qd GULLFORD FORMATION - alluvial sand and silt with minor calcareous deposits
- Qe Alluvial and colluvial deposits overlies weathered basement or older sedimentary rocks

TERTIARY

- Tp Estuarine, lagoonal and lacustrine deposits
- Tq Alluvial, lacustrine and shallow marine deposits - clay and sand
- Tr PALLINUP SILTSTONE - grey, brown siltstone, overlies WERRILUP FORMATION or weathered basement
- Tv WERRILUP FORMATION or palaeosol deposits - sand, silt and calcareous sediments

CRETACEOUS

- Ka WARBURTON GROUP - sandstone, siltstone and shale
- Kb BUNBURY BASALT - porphyritic and vesicular basalt (section only)

MESOZOIC

JURASSIC

- Ja PARNELLIA FORMATION - sandstone, siltstone and shale
- Jb YARRAGADEE FORMATION - sandstone, siltstone and shale
- Jc COCKLESHELL GULLY FORMATION - sandstone with interbedded shale and siltstone (section only)

PROTEROZOIC

- Pg Mafic dyke and sill - flow to coarse-grained, diabatic and gabbroic dikes, granophyre and quartzite
- Pq Quartz dike
- Pf Granitoid rock, porphyritic and even-grained, outcrop (indicated by darker colour); subsurface generally weathered to clayey sand
- Pi Granitoid gneiss, migmatite, quartz-feldspathic gneiss; outcrop (indicated by darker colour); subsurface generally weathered to clay
- Pa Granitoid rocks and adamellite; even-grained, outcrop (indicated by darker colour); subsurface generally weathered to clayey sand
- Pk Granitic gneiss, minor schists and minor quartz-feldspar gneisses; outcrop (indicated by darker colour); subsurface generally weathered to clay
- Al Quartzite

ARCHAIC

SYMBOLS

GEOLOGY

- hydrogeological boundary, contoured
- contour interval (section only)
- feature zones
- extent of weathering (section only)

SURFACE WATER FEATURES

- channel, permanent, intermittent
- line, permanent, intermittent, swamp
- surface water divide

GROUNDWATER FEATURES

- spring
- water table contour (in AHD)
- water table position uncertain (section only)

MINING FEATURES

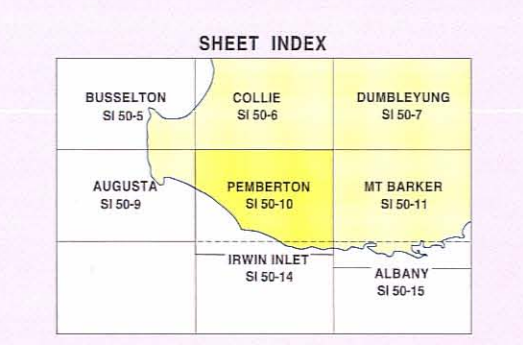
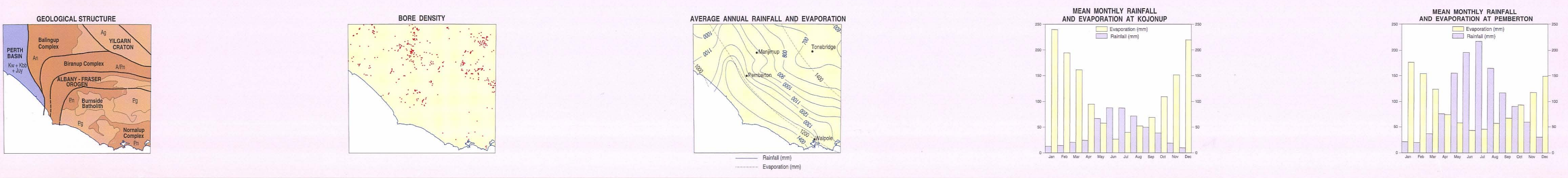
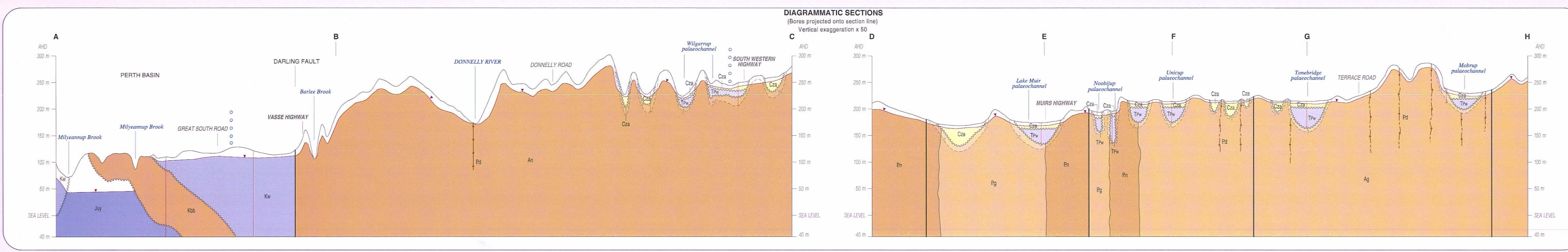
- open cut mine

ARTIFICIAL FEATURES

- water bore, yield < 50 m³/day; monitoring
- water bore abandoned, yield > 50 m³/day; dry
- well, abandoned
- enclosed tank and sewage area
- extent of monitoring bore
- artificial aquifer outcrop

TOPOCADASTRAL INFORMATION

- major road with national route number
- minor road
- track
- zoning
- alleyway with zoning
- boundary ground
- transverse, population < 1000
- transverse, population > 1000
- locality
- submerged rock
- topographic contour, 50 metres (AHD)
- contour interval
- horizontal control, major, minor (AHD)
- national park boundary



Hydrogeology by J. De Silva, 2000
Geology by S.A. Walsh and L.W. Walker, 1984
L.S. Myers, 1985.

Cartography by S. Maffey, Water and Rivers Commission
Topography from the Department of Land Administration Sheet SI 50-10, SI 50-14 and modifications from geographic field notes.

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SCALE 1:250 000

0 5 10 15 20 25 30 Kilometres

TRANSVERSE MERCATOR PROJECTION
Grid lines shown at 200-metre intervals of the Australian Map Grid Zone 50

1:250 000 HYDROGEOLOGICAL SERIES
PEMBERTON - IRWIN INLET
SHEET SI 50-10 AND PART OF SHEET SI 50-14
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