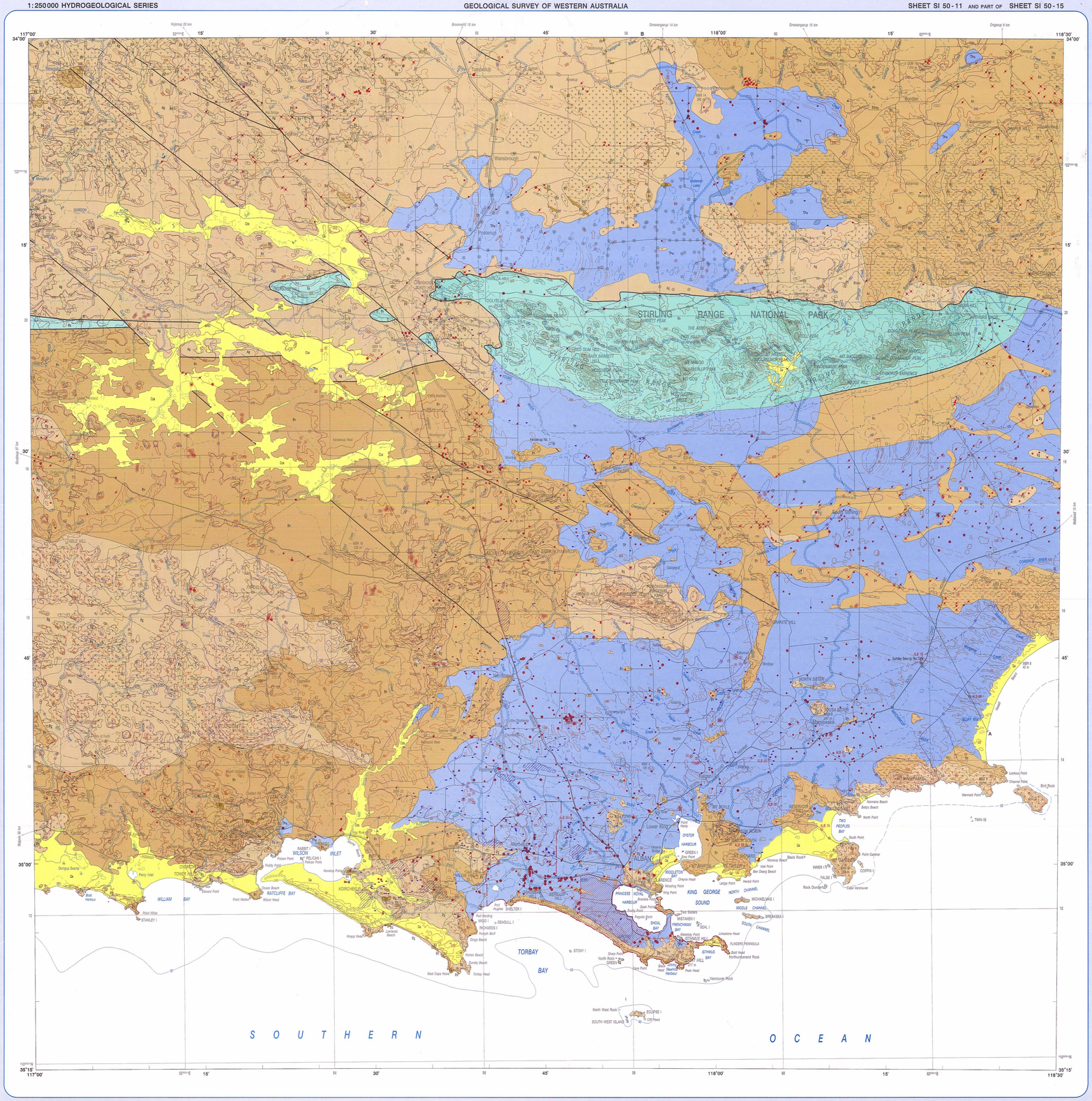
MT BARKER - ALBANY

1:250000 HYDROGEOLOGICAL SERIES

GEOLOGICAL SURVEY OF WESTERN AUSTRALIA

SHEET SI 50-11 AND PART OF SHEET SI 50-15



REFERENCE

AQUIFER CHARACTERISTICS

- Surficial aquifer—local aquifers, probable extensive sedimentary aquifer beneath, minor groundwater resources
- Sedimentary aquifer with intergranular porosity—extensive aquifers, major groundwater resources
- Sedimentary aquicludes and local aquifers—minor or no groundwater resources (section only)
- Fissured aquifer, locally fractured and jointed—minor groundwater resources
- Fractured and weathered rocks—local aquifers, minor groundwater resources
- Fractured and weathered rocks—local aquifers, very minor or no groundwater resources

HYDROGEOLOGY

PHANEROZOIC	CAINOZOIC	QUATERNARY	Qa — Alluvial, estuarine, lagoonal, and eolian deposits—sand, clay, and limestone; mainly coastal	Minor local aquifers; fresh to saline
			Qda — Alluvial and colluvial deposits—pebbles, sand, silt, and clay; some lateritized, in valleys with lakes; mainly overlying Werillup Formation; includes minor lacustrine deposits	Minor local aquifers; fresh to saline
		TERTIARY	Tp — PLANTAGENET GROUP—siltstone, spongolite; minor sandstone, peat, and conglomerate	Minor to major aquifers; fresh to saline
			Tmy — PALLINUP SILTSTONE—multicoloured (predominantly red and white) siltstone, spongolite, and minor sandstone (section only)	Minor local aquifers; fresh to saline
			Tmw — WERILLUP FORMATION—thyolean limestone, siltstone, sandstone, peat, and basal conglomerate; outcrop (indicated by overprint); weathered	Major aquifers; fresh to saline
	PROTEROZOIC		Ed — Dolerite dyke; interpreted where dashed	Very minor local aquifers; saline
			Q — Quartz vein	Minor local aquifers; brackish to saline
			Es — STIRLING RANGE FORMATION—interbedded metamorphosed sandstone, quartzite, and shale; outcrop (indicated by overprint); weathered	Minor local aquifers; fresh to saline
			Eg — Granitoid rock, porphyritic and even-grained; outcrop (indicated by overprint) subsurface; generally weathered to clayey sand	Minor local aquifers; brackish to saline
			En — Granitoid gneiss, minor metamorphic rock and quartzite; outcrop (indicated by overprint) subsurface; generally weathered to clay	Aquiclude, very minor local aquifers; saline
	ARCHAEAN		Ag — Granitoid rock, porphyritic and even-grained; outcrop (indicated by overprint) subsurface; generally weathered to clayey sand	Minor local aquifers; brackish to saline
			An — Granitoid gneiss, migmatite, minor quartzite and schist; outcrop (indicated by overprint) subsurface; generally weathered to clay	Aquiclude, very minor local aquifers; saline

BREMER BASIN — ALBANY - FRASER OROGEN — YILGARN CRATON

SYMBOLS

GEOLOGY

- hydrogeological boundary
- unconformity (section only)
- fault
- aliphoto lineament

SURFACE WATER FEATURES

- drainage; intermittent; pool
- lake; intermittent; swamp
- surface water divide
- surface water pipeline

GROUNDWATER FEATURES

- spring; seepage area
- watertable contour (m AHD); position uncertain
- watertable; position uncertain (section only)
- direction of groundwater flow
- boundary of groundwater control area
- groundwater pipeline
- liquid waste disposal or landfill site; abandoned
- rising watertable, land salinization
- stratigraphic well; mineral exploration drillhole

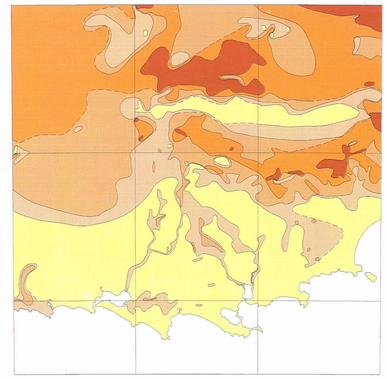
ARTIFICIAL FEATURES

- water bore; yield <30 m³/day; >30 m³/day; monitoring
- exploratory water bore (not equipped); dry
- artesian bore
- well; yield <30 m³/day; >30 m³/day; abandoned
- area with numerous bores, well field, town water supply

TOPOCADASTRAL INFORMATION

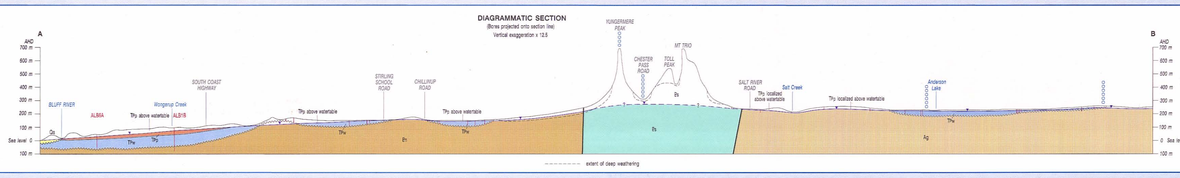
- highway with national route marker
- formed road
- track
- railway with siding
- railway, abandoned
- airfield; landing ground
- townsite, population greater than 10000
- townsite, population 1000—10000
- townsite, population less than 1000
- locality
- contour line, 50 metre interval (AHD)
- cliff
- sand dune
- horizontal control; major, minor (AHD)
- national park boundary
- bathymetric contour (m)

GROUNDWATER SALINITY

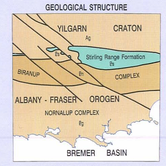


DIAGRAMMATIC SECTION

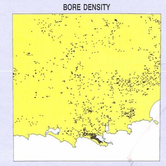
(Bores projected onto section line)
Vertical exaggeration x 12.8



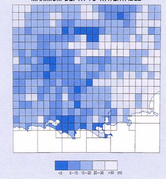
GEOLOGICAL STRUCTURE



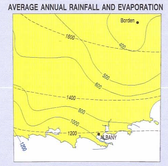
BORE DENSITY



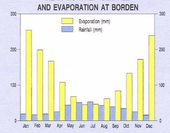
MAXIMUM DEPTH TO WATERTABLE



AVERAGE ANNUAL RAINFALL AND EVAPORATION



MEAN MONTHLY RAINFALL AND EVAPORATION AT BORDEN



MEAN MONTHLY RAINFALL AND EVAPORATION AT ALBANY

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SCALE 1:250 000

9000 0 5 10 15 20 25 30
Metres Kilometres

TRANSVERSE MERCATOR PROJECTION
Grid lines indicate 20000 metre interval of the Australian Map Grid Zone 50

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