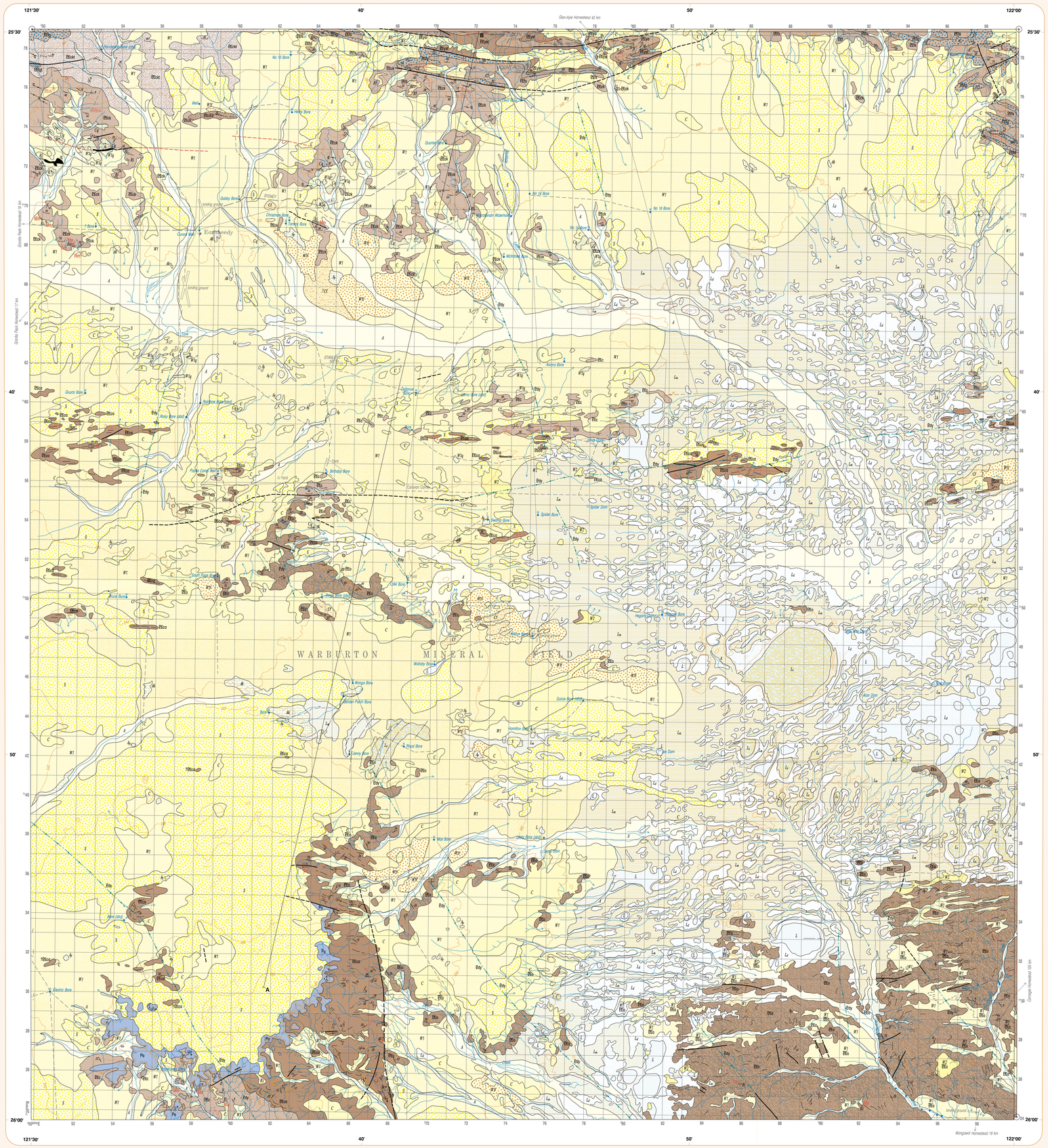
EARAHEEDY

AUSTRALIA 1 : 100 000 GEOLOGICAL SERIES | **GEOLOGICAL SURVEY OF WESTERN AUSTRALIA** | **SHEET 3246**



PHANEROZOIC

CAINOZOIC — QUATERNARY

Sheetwash units

- W1 Ferruginous clay, silt, and sand on low gradient sheetwash areas
- W1f Ferruginous gravel in low-gradient sheetwash areas
- W1g Quartz rubble and debris adjacent to quartz veins in low-gradient sheetwash areas

Alluvial units

- A Gravel, sand, and silt in channels and floodplains
- Ap Clay and silt in playpans
- Ak Calcrete in alluvial systems

Lacustrine units

- L Saline silt, mud, and minor sand in playp lakes
- Lz Sand in dunes on and around playp lakes, in places gypsiferous
- Lk Calcrete and gypcrete deposits, in and around salt lakes
- Lm Gypsiferous and saline bedded and eolian deposits adjacent to salt lakes
- Lr Subcropping bedrock in lakes; variable to minimal exposure of rock beneath thin lacustrine deposits

Sandplain unit

- S Unconsolidated sand; minor silt and clay, with scattered low, vegetated dunes

Colluvium units

- C Gravel, rock fragments, sand, and silt, mostly proximal slope deposits
- Cq Quartz vein rubble and debris
- Cf Ferruginized rubble and colluvium; dominantly ferruginized pisolites and nodules, ferruginized rock, and ironstone rubble; degraded lateritic duricrust

Sheetwork unit

- W2 Consolidated sheetwash deposits

Relict units

- Rf Ferruginous duricrust; nodular, pisolitic, and massive ferricrete (laterite) and associated debris
- Ri Ironstone, ferruginized rock, massive to rubbly; tridulite degraded ferruginous duricrust
- Rz Siliceous duricrust; nodular, pisolitic, and laminar silcrete and intensely silicified bedrock

PALAEOZOIC — PERMIAN

- Pa **PATERSON FORMATION:** poorly sorted sandstone; minor conglomerate and siltstone

- q Quartz in massive bodies or veins

- Er **SYDNEY HEADS PASS CONGLOMERATE:** conglomerate, ferruginous sandstone, and siltstone; minor pisolitic ferricrete

PROTEROZOIC

PALAEOPROTEROZOIC — Stanley Fold Belt (?1760 Ma)

Earaheedy Group — Minigorra Subgroup

- Etco **WONGAWOL FORMATION:** undivided, very fine-grained sandstone, siltstone, and shale
- Etc **CHAALL FORMATION:** sandstone and siltstone, coarsening-upwards; marine shelf to coastal
- Etcos Sandstone, variable textural and compositional maturity; stratigraphic position variable
- Etck Phyllite; restricted to the Stanley Fold Belt
- Etcks **Karri Karri Member:** shale, generally finely and evenly laminated, siltstone, and minor sandstone
- Etcka Fine-grained sandstone and minor siltstone

Earaheedy Group — Tooloo Subgroup

- Ett **FRERE FORMATION**
  - Ettf Granular and laminar iron-formation, granular siliceous iron-formation, siltstone, shale, and chert; marine shelf to near shore
  - Ettfn Granular iron-formation, siltstone, and shale; deformed and metamorphosed in the Stanley Fold Belt
  - Ettfnp Laminar granular iron-formation; deformed and metamorphosed in the Stanley Fold Belt
  - Ettfg Granular iron-formation and granular siliceous iron-formation, in places pelodol; minor siltstone, shale, and chert
  - Ettfs Siltstone and shale; minor iron-formation
  - Ettfo Sandstone, locally with intercalated granular iron-formation; arenite to iron-formation transition
- Ettyat Phyllite and phyllitic shale; restricted to the Stanley Fold Belt
- Etty **YELMA FORMATION:** sandstone and siltstone (Diagrammatic Section and Interpreted Bedrock Geology)
- Ettyo Sandstone, coarse-grained and locally pebbly

EARAHEEDY BASIN

- Edy Dolerite dyke, concealed; interpreted from aeromagnetic data

YILGARN CRATON

Symbols

- Geological boundary
  - exposed
  - concealed
- Fault
  - exposed, showing dip
  - concealed
  - concealed, interpreted from aeromagnetic data
  - horizontal relative displacement
- Fold showing axial trace and generalized plunge direction
  - anticline, exposed
  - syncline, exposed, concealed
  - overturned anticline, exposed
- Small-scale fold axial surface, showing strike and dip
  - inclined
  - fold axis
- Small-scale fold axial surface, showing trend and plunge
  - anticline
  - syncline
  - Z-vergence
  - S-vergence
  - M-vergence
  - meso-scale folding
- Bedding showing strike and dip
  - inclined
  - vertical
  - horizontal
  - overturned
  - bedding trend
- Palaeocurrent, showing trend and sense of direction
  - from asymmetrical ripple marks
  - from cross bedding
  - from cross bedding, sense not known
  - from trough cross-bedding
  - from trough cross-bedding, sense not known
  - from current lineation, sense not known
- Way-up indicator
  - sedimentary structure
  - cross bedding
- Cleavage, showing strike and dip
  - inclined
  - vertical
- Airphoto lineament
  - structural trend, unspecified
- Formed road
- Track
- Fence, generally with track
- Homestead — Earaheedy
- Yard
- Horizontal control, minor
- Breakaway
- Sand dune
- Contour line, 20m interval — 480
- Watercourse with ephemeral pool, rockhole or waterhole
- Bore, well — Bore, Well
- Dam — Dam
- Abandoned — (abd)
- Quarry or open pit
- Mineral exploration drillhole showing subsurface data — Etck
- Mineral occurrence
  - Manganese — Mn
  - Road materials — Rm

SHEET INDEX

FARRAMPIN 2947	METHVEN 2947 HASBERG	RHODES 3147	MUDAN 3247	ELDAHFUL 3347 STANLEY	KAARIMAI 3447
MERRIE 3046	SG 51-5 WARBURN 3146	GRANITE PEAK 3146	EARAHEEDY 3246	SG 51-9 LAKE STERN 3346	COONABIDGE 3446
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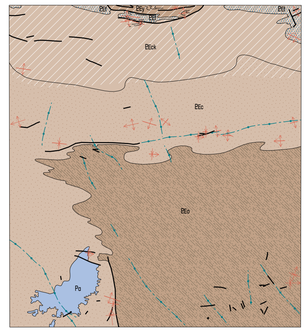
MILLINA 3044	SG 50-8 LAKE VIDLER 3144	SANDALWOOD 3144	YELMA 3244	SG 51-12 COLLIGNANGE 3344	VON TRELEIS 3444

1:100 000 maps shown in black
1:250 000 maps shown in brown

INTERPRETED BEDROCK GEOLOGY

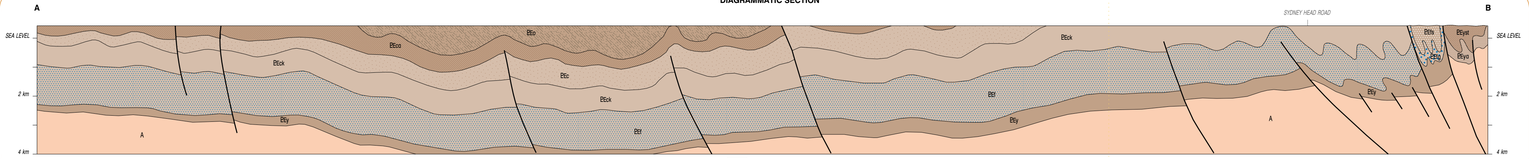


- Pa Paterson Formation
- Overprint indicates deformed and metamorphosed in Stanley Fold Belt
- Etco Wongawol Formation
- Etc Chaall Formation
- Etck Karri Karri Member
- Ett Frere Formation
- Etty Yelma Formation
- Edy Dolerite dyke, concealed

Earaheedy Group — EARAHEEDY BASIN — YILGARN CRATON

SCALE 1:100 000

DIAGRAMMATIC SECTION



A — Archaean basement, Yilgarn Craton

Geology by N. G. Adamides 1998; F. Pirajno, R. M. Hocking, and J. A. Jones 1999

Edited by D. Ferdinando and G. Loan

Cartography by E. Green, A. Francois, and B. Williams

Topography from the Department of Land Administration Sheet SG 51-8, 3246, with modifications from geological field survey

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This map is also available in digital form

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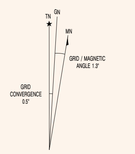

True north, grid north and magnetic north are shown diagrammatically for the centre of the map. Magnetic north is correct for 2000 and moves easterly by about 0.1° in 3 years

DEPARTMENT OF MINERALS AND ENERGY
L. C. RAWFORD, DIRECTOR GENERAL

GOVERNMENT OF WESTERN AUSTRALIA
HON. NORMAN MOORE, M.L.C.
MINISTER FOR MINES

GEOLOGICAL SURVEY OF WESTERN AUSTRALIA
DAVID BLIGHT, DIRECTOR

SCALE 1:100 000

1000 Metres 0 1 2 3 4 5 6 7 8 9 10 Kilometres

UNIVERSAL TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: GEOCENTRIC DATUM OF AUSTRALIA 1994
VERTICAL DATUM: AUSTRALIAN HEIGHT DATUM

Grid lines indicate 1000 metre interval of the Map Grid Australia Zone 51

GDA

The Map Grid Australia (MGA) is based on the Geocentric Datum of Australia 1994 (GDA94)
GDA94 positions are compatible within one metre of the datum WGS84 positions

Reference points to align maps based on the previous datum, AGD84, have been placed near the map corners

EARAHEEDY

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