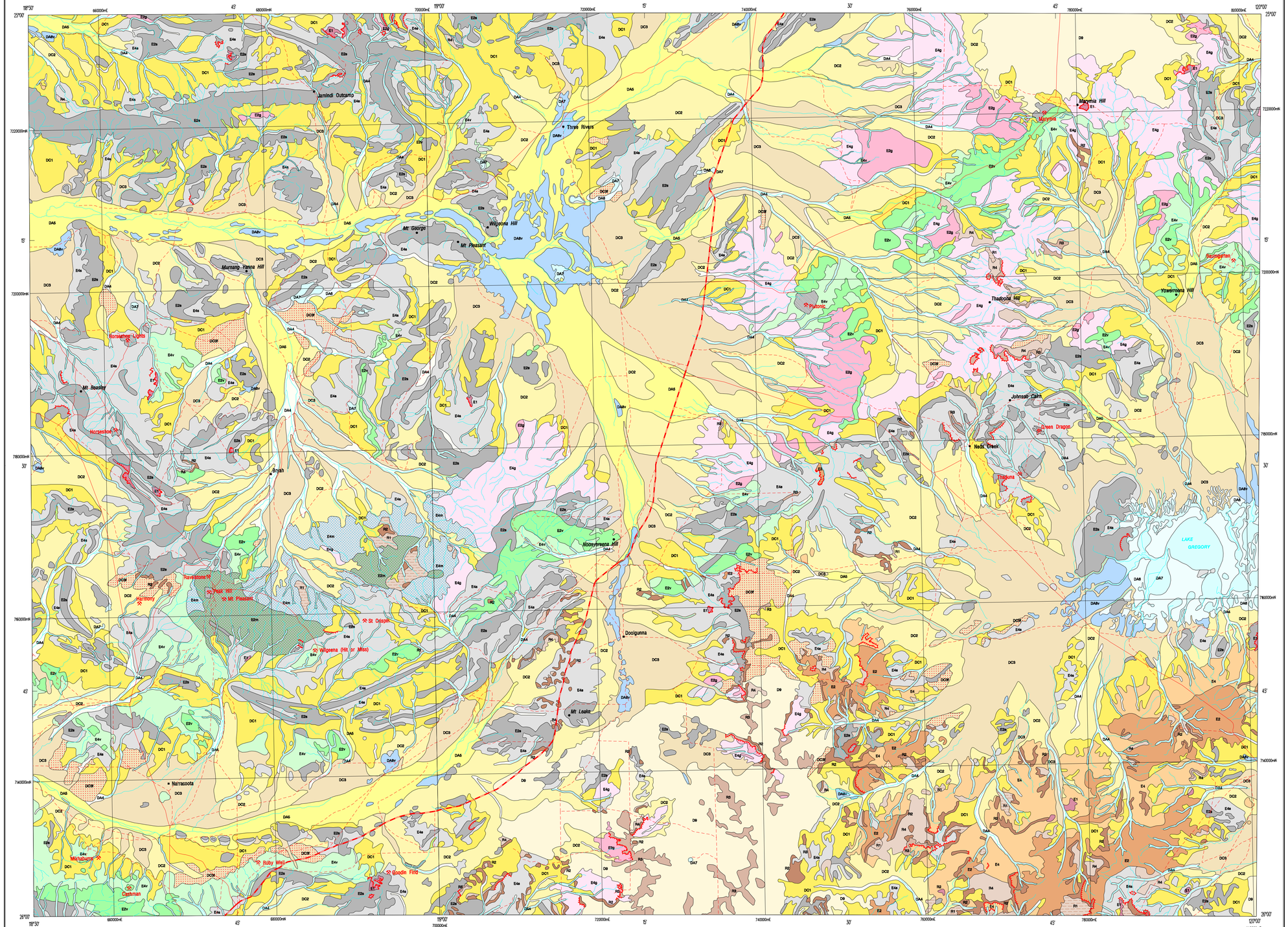
# PEAK HILL

1:250 000 REGOLITH MATERIALS SERIES

GEOLOGICAL SURVEY OF WESTERN AUSTRALIA

SHEET SG 50-8




## REFERENCE

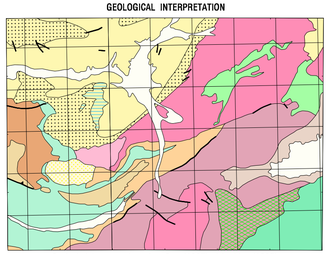
| | | OSIRO (1) | OSIRO (2) | AGSO |
|---|---|---|---|---|
| **RELICT REGIME** | | | | |
| R1 | Ferruginous pisolites and nodules | LT1 | R2 | NO40 |
| R2 | Iron-rich duricrust forming remnant land-surfaces | LT2 LT3 | R1 | DS42 |
| R3 | Silcrete (often weakly ferruginized): mainly overlies granitoids and sedimentary rocks | BR2 | -- | DS60 |
| R4 | Quartz-rich sands and silts overlying presumed or known R1-R3 material | ET1, LS3 LS4 | D9 | WR22 |
| **EROSIONAL REGIME** | | | | |
| E1 | Mottled zone and saprolite; generally poorly exposed | SP1-5 | E8 E4 | WR11-14 |
| E2 | Outcrop of saprock and bedrock, and areas of subcrop with locally derived sands and sandy clays; coarse (bouldery) lag may be present adjacent to prominent ranges | BR3, BR2 SS1, SS6 | E6-E8rrc | WR12, WR21 WR24 |
| E2g | E2 derived from granitoid rock | | | |
| E2v | E2 derived from volcano-sedimentary greenstones and other mafic rocks | | | |
| E2s | E2 derived from sedimentary rocks | | | |
| E2m | E2 derived from schistose and gneissic metamorphic rocks | | | |
| E4 | Lag of locally derived ferruginous and/or lithic fragments, and/or feldspar in a sandy clay to sand-rich matrix associated with actively eroding cutcrop/subcrop | NL3, SS1 SS5, SS6 | E6 E7 | WR12, WR21 WR24 |
| E4g | E4 derived from granitoid rock | | | |
| E4v | E4 derived from volcano-sedimentary greenstones and other mafic rocks | | | |
| E4s | E4 derived from sedimentary rocks | | | |
| E4m | E4 derived from schistose and gneissic metamorphic rocks | | | |
| **DEPOSITIONAL REGIME** | | | | |
| | DOMINANTLY COLLUVIAL | | | |
| DC1 | Medium to coarse detritus, mainly of lithic or ferruginized lithic clasts (most >25 mm) in colluvium with a sand or sandy clay matrix | CS3, CS4 ML3 | D1 D4 | SC01, SC04 SC05 |
| DC2 | Fine to medium detritus (most clasts 4-25 mm) mainly of ferruginized lithic origin, or quartz in a sandy clay matrix | CS1, CS3 CS4, ML2 | D2 | SC05 |
| DC3 | Sand and clay (with or without feldspar)-dominated colluvium or sheetwash; merges into alluvial plains (DA5) | AS5, CS1-4 ML2 | D3 D4 | SC05 SC06 |
| DC3f | Detritus, mainly non-lithic ferruginous (most clasts <10 mm) possibly magnetic in red sandy clay; includes ducternot gravel | DM1 DM2 | D3 D4 | SC05 SC06 |
| | DOMINANTLY ALLUVIAL | | | |
| DA4 | Gravelly sands and sandy clays of active alluvial channels with mixtures of ferruginous and variably altered lithic fragments | AS1 AS2 | D1 | SA00 SA01 |
| DA5 | Sand or clay-rich alluvium and colluvium on broad drainage floors, including overbank alluvial deposits and terraces; includes non-saline claysamic calcrete fragments | AS1 AS2 | D5 | SA00 SA02 |
| DA6 | Gypsiferous soils and sediments adjacent to playa lakes; usually vegetated | AS3 AS4 | D7 D8 | DS01, EV02 SE00 |
| DA7 | Saline clays and silts of playa lakes; usually lacking vegetation | AS3 AS4 | D6 | EV01 SL00 |
| DAlv | Valley calcrete | | -- | DS20 |
| | DOMINANTLY EOLIAN | | | |
| D9 | Sandplain, eolian in origin; may form dunes or thin sheets; overlies sheetwash, soil or 'bedrock' | ES1, ES2 ET7 | D9 | SSD1, US00 WR22 |

OSIRO (1) regolith codes: R.R. Anand et al., 1988
OSIRO (2) regolith codes: M.A. Craig and R.R. Anand, 1993
AGSO regolith codes: C. Pain et al., 1991

## SYMBOLS

- Regolith boundary
- Principal road
- Minor road
- Track
- Breakaway
- Watercourse, ephemeral
- Homestead — Bryah
- Locality — *Mt Leake*
- Significant mine — Thaduna
- Mining area, made ground

## GEOLOGICAL INTERPRETATION



Geological interpretation after Gee (1987), Adamides (1995), Pirajno and Occhipinti (1995). Subject to modification at close of current mapping program.

PROTEROZOIC

- Cainozoic alluvial deposits; includes calcrete
- Bangemall Group: Sandstone, minor siltstone; rare dolerite
- Shale, chert; rare dolerite
- Carbonate rock; includes dolerite sill
- Earaheedy Group: Carbonate rock, shale, sandstone
- Padbury Group: Iron-formation, sandstone, shale
- Bryah Group: Iron-formation, manganiferous shale, siltstone, arkose
- Arkose, wacke, sandstone, shale
- Mafic lavas, sills, and breccias
- Quartz-sericite schist, mylonite
- Glengarry sequence: Wacke, sandstone, shale, carbonate rock
- Mafic rock; wacke, sandstone, shale, carbonate rock
- Mafic rocks; subordinate black shale, sandstone, quartzite

ARCHAEAN

- Granitoid rock
- Metamorphosed mafic, ultramafic, and felsic volcanic rocks; sedimentary rocks, including iron-formation
- Gneiss, amphibolite and calc-silicate rocks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DEPARTMENT OF MINERALS AND ENERGY
HON. GEORGE CASH JP., M.L.C.
MINISTER FOR MINES
K.R. PERRY, DIRECTOR GENERAL

SCALE 1:250 000

5000 0 5 10 15 20 25 30
METRES KILOMETRES

TRANSVERSE MERCATOR PROJECTION
Grid lines indicate 20 000 metre interval of the Australian Map Grid Zone 50

PIETRO GUJ
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Compiled by: J.R. Gozzard, A.G. Subramanya, and A.J. Sanders 1995

Field observations by: A. Subramanya (GSWA), and S. King, G. Lawrence, and G. Tolland (Geochemex Australia) 1994

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WARNING: Inks are water soluble and will fade with prolonged exposure to light