Mountains, Hills and Ranges

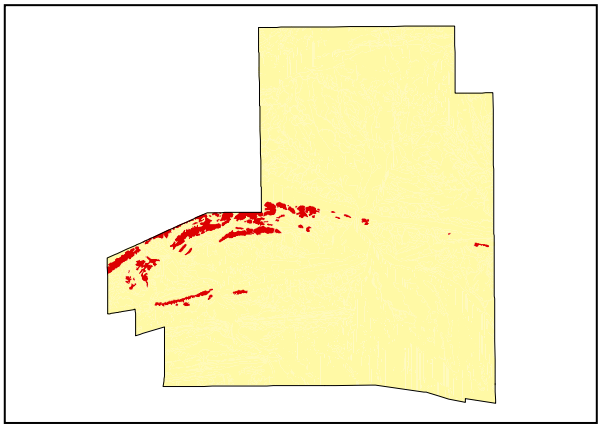
LAND UNIT 1.06

Gillen Member Dolomite Hills

DESCRIPTION: Rounded, occasionally jagged, Gillen Member Dolomite Hills with scattered Mallee trees over Giant Grey Spinifex.

SITES: 064, **067**

Distribution of mapped area.



Area = 9.39 km^2, 2.85% of mapped area.

LAND CAPABILITY:

ATTRIBUTES	
SLOPE (%)	55
RELIEF (m)	90
SOIL DEPTH (m)	0.05
SURFACE CONDITION	Loose
DEPTH to SUBSTRATE (m)	0.05
REACTION TREND (pH)	10.0
OUTCROP (%)	95
RUNOFF	Rapid
PERMEABILITY	Slowly permeable
DRAINAGE	Poorly drained
SALINITY (µs/cm)	109.9

DEVELOPMENT RISKS	
EROSION	Severe
ROCK FALL	Slight
SHEET FLOODING	None
INUNDATION	None
SALINITY	None
ALKALINITY	Severe
ACIDITY	None

CAPABILITY CLASS					
Formed Roads	**Shallow excavations**	**Septic Disposal**	**Horticulture**	**Building Foundations**	**Landscaping**
Poor	Very Poor	Very Poor	Very Poor	Poor	Very Poor

Hills and Ranges

TECHNICAL DETAILS — LAND UNIT 1.06

DESCRIPTION: Gillen Member Dolomite hills with scattered trees over spinifex.

GEOLOGY: Late Proterozoic Gillen Member Dolomite Member. Regular occurrence of brecciated dolomite fragments in a well-cemented calcrete matrix. Regular, surficial, calcrete cutans on dolomitic fragments.

LANDFORM: Steep Low Hills and Rolling Hills that protruded from the lower surrounding areas to a maximum relief of 90m but generally 60 -90m. Slopes vary considerably from 35% to 55% with broad drainage gullies separating areas of higher elevation. Exposed areas reveal minimal internal fracturing of the substrate suggesting slow permeability and drainage.

SOIL: Example from **Site 067.**
MGA. Coords: 7375649.50mN, 377754.88mE

CLASSIFICATION: Red brown calcareous earth. Calcarosol - CA, CQ, CZ, CP, A, I, T

SURFACE: 80% 200-600mm subangular, calcareous fragments. Areas of substrate exposure are covered by calcareous nodules that trap wind blown soil particles whilst other soil forms in substrate voids and within slope rubble.

DEPTH (m)	HORIZON	TEXTURE	pH	SALINITY (µs/cm)	OTHER DETAILS
0.00 - 0.05	A1k	Sandy clay loam (SCL)	10.0	110.5	Brown (7.5YR4/4). 25% 2-6mm subangular, calcareous fragments and 25% 6-20mm subangular calcareous fragments form the course fraction of the sample site. Highly effervescent.

VEGETATION: **Site 156** (Albrecht, D. and Pitts, B. 1999).

UPPER STRATUM - Isolated trees	
Dominant species	
Other species	Whitewood, Supplejack, Bloodwood.
MID STRATUM - Isolated shrubs	
Dominant species	*Acacia bivenosa, Eucalyptus eucentrica*
Other species	Witchetty Bush, Wild Orange, Rock Fuchsia Bush, *Eremophila christophori*, Silver Cassia, *Senna artemisioides subsp. alicia*, Blunt-leaf Cassia,
LOWER STRATUM - Open hummock grassland	
Dominant species	Giant Grey Spinifex
Other species	Hill Sunray, Buffel Grass, Woolly Cloak Fern, Purplehead Nineawn, Orange Spade Flower, *Indigofera A86365 Macdonnell Ranges, Kohautia australiensis*, Green Peppercress, Tassel Top, Silver Tails, *Scaevola glabrata*, *Sida A90679 Limestone*, Potato Bush, Wild Tomato, *Stackhousia clementii*, Narrow Thread-petal, *Streptoglossa decurrens*,

(See Appendix 3 for botanical names)