

## CALCAREOUS CLAY LOAM

**General Description:** *Calcareous loam with increasing clay and carbonate content with depth*

**Landform:** Gentle slopes and flats.

**Substrate:** Gravelly alluvium or slope wash (Telford Gravel)

**Vegetation:** *Marieana brevifolia* (bluebush)



**Type Site:** Site No.: CM083

1:50,000 sheet: 6831-4

Hundred: Out of Hundreds

Annual rainfall: 210 mm

Sampling date: 19/11/96

Landform: Flat, 0% slope

Surface: Firm, tending self-mulching, no stones

### Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
0-15	Yellowish red highly calcareous clay loam with moderate granular structure. Clear to:
15-30	Red highly calcareous light clay with moderate polyhedral structure. Clear to:
30-65	Red highly calcareous medium clay with strong polyhedral structure. Gradual to:
65-100	Red massive very highly calcareous medium clay with 10-20% soft carbonate segregations. Diffuse to:
100-150	Red highly calcareous medium clay with moderate polyhedral structure and 20-50% ironstone, quartz and calcrete gravel.



**Classification:** Endohypersodic, Pedal, Calcic Calcarosol; thick, non-gravelly, clay loamy / clayey, deep

## Summary of Properties

**Drainage** Well drained - the soil is unlikely to remain wet for more than a few days following prolonged rain.

**Fertility** Natural fertility is high as indicated by the exchangeable cation data.

**pH** Alkaline at the surface, strongly alkaline with depth.

**Rooting depth** 150 cm in pit but few roots below 100 cm.

### Barriers to root growth

**Physical:** None.

**Chemical:** None.

**Water holding capacity** Approximately 130 mm in root zone.

**Seedling emergence:** Good.

### Erosion Potential

**Water:** Low.

**Wind:** Low.

## Laboratory Data

Depth cm	pH H <sub>2</sub> O	pH CaCl <sub>2</sub>	CO <sub>3</sub> %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	SO <sub>4</sub> -S mg/kg	Boron mg/kg	Trace Elements mg/kg (DTPA)				CEC cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
											Cu	Fe	Mn	Zn		Ca	Mg	Na	K	
Paddock	8.5	7.9	6	0.17	0.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0-15	8.6	7.9	3	0.15	0.56	-	-	-	-	-	-	-	-	-	23.3	15.2	3.7	0.70	2.08	3.0
15-30	8.6	7.9	2	0.16	0.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-65	8.6	7.9	3	0.17	0.43	-	-	-	-	-	-	-	-	-	27.5	17.1	5.6	1.55	1.68	5.6
65-100	9.0	7.9	14	0.22	0.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100-150	9.2	8.1	19	0.27	0.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Note:** Paddock sample bulked from cores (0-10 cm) taken around the pit.

CEC (cation exchange capacity) is a measure of the soil's capacity to store and release major nutrient elements.

ESP (exchangeable sodium percentage) is derived by dividing the exchangeable sodium value by the CEC.