

DEEP CALCAREOUS CLAY LOAM

General Description: *Medium textured brown surface soil over a calcareous medium textured silty subsoil grading to alluvium*

Landform: Alluvial flats

Substrate: Alluvial light clay

Vegetation: *Stipa* spp. (spear grass) and bindyi.



Type Site: Site No.: CM079

1:50,000 sheet: 6830-3 (Lindley)

Hundred: Lindley

Annual rainfall: 220 mm

Sampling date: 18/11/96

Landform: Alluvial flat, 0% slope

Surface: Firm with no stones

Soil Description:

Depth (cm)	Description
0-20	Brown clay loam with moderate granular structure. Clear to:
20-45	Brown highly calcareous silty clay loam with moderate polyhedral structure. Gradual to:
45-70	Brown very highly calcareous silty clay loam with moderate blocky structure and 10-20% fine carbonate. Gradual to:
70-100	Brown very highly calcareous silty clay loam with weak prismatic structure and 2-10% soft carbonate. Diffuse to:
100-140	Brown very highly calcareous light clay with weak prismatic structure breaking to moderate blocky, and 10-20% soft carbonate.



Classification: Epibasic, 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 Inherent fertility is high, as indicated by exchangeable cation data.

pH Alkaline throughout.

Rooting depth 140 cm in pit, but few roots below 100 cm.

Barriers to root growth

Physical: None.

Chemical: None.

Water holding capacity Approximately 140 mm in root zone.

Seedling emergence: Good.

Erosion Potential

Water: Low.

Wind: Moderately low - stock will pulverize soil creating an erosion hazard.

Laboratory Data

Depth cm	pH H ₂ O	pH CaCl ₂	CO ₃ %	EC1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	SO ₄ -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	7.8	2	0.16	0.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0-20	8.4	7.8	2	0.15	0.55	-	-	-	-	-	-	-	-	25.2	13.6	4.7	0.24	3.45	1.0	
20-45	8.5	7.8	3	0.14	0.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
45-70	8.7	8.0	16	0.18	0.50	-	-	-	-	-	-	-	-	18.5	7.9	7.2	0.65	1.32	3.5	
70-100	8.8	8.1	14	0.15	0.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
100-140	8.8	8.2	16	0.15	0.37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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.