

## LOAMY SAND OVER RED SANDY CLAY LOAM

**General Description:** *Sandy to sandy loam surface over a red brown weakly calcareous clay loamy subsoil grading to alluvium*

**Landform:** Very gently undulating alluvial flats

**Substrate:** Coarse textured alluvium

**Vegetation:**

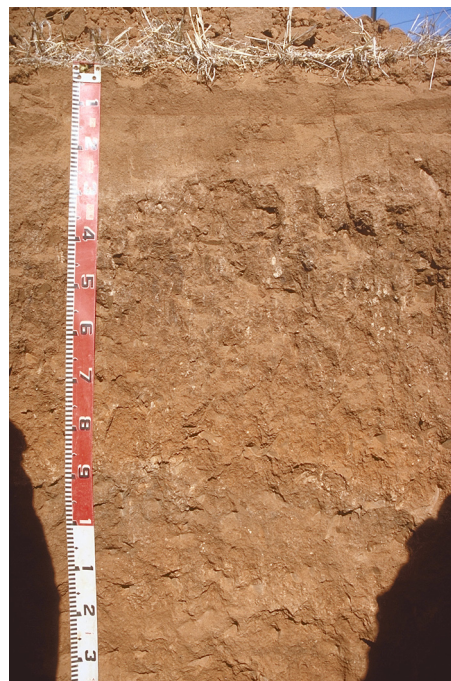


<b>Type Site:</b>	Site No.:	CU062	1:50,000 mapsheet:	6531-4 (Pirie)
	Hundred:	Telowie	Easting:	222950
	Section:	29	Northing:	6339550
	Sampling date:	07/05/1996	Annual rainfall:	335 mm average

Depression on a very gently undulating plain, 1% slope. Firm surface, no stone.

### Soil Description:

Depth (cm)	Description
0-11	Reddish brown firm massive loamy sand. Sharp to:
11-25	Reddish brown very hard massive loamy sand (plough pan). Clear to:
25-30	Yellowish red very hard massive highly calcareous sandy loam. Abrupt to:
30-60	Dark reddish brown hard highly calcareous clay loam with moderate coarse prismatic structure and 2-10% soft carbonate. Gradual to:
60-100	Yellowish red firm highly calcareous fine sandy clay loam with weak coarse prismatic structure and 2-10% soft carbonate. Gradual to:
100-160	Yellowish red soft highly calcareous clayey sand.



**Classification:** Sodic, Calcic, Red Chromosol; medium, non-gravelly, sandy / clay loamy, deep



## Summary of Properties

<b>Drainage:</b>	Well drained. The soil is unlikely to ever remain wet for more than a few hours.
<b>Fertility:</b>	Natural fertility is moderate (as indicated by the exchangeable cation data) due to low clay content. Levels of major nutrients and organic carbon are satisfactory.
<b>pH:</b>	Alkaline at the surface, strongly alkaline with depth.
<b>Rooting depth:</b>	120 cm in pit but few roots below 100 cm.
<b>Barriers to root growth:</b>	
<b>Physical:</b>	There is a plough pan near the surface at this site.
<b>Chemical:</b>	Very high pH and sodicity prevent root growth below 100 cm.
<b>Waterholding capacity:</b>	Approximately 120 mm in rootzone.
<b>Seedling emergence:</b>	Good.
<b>Workability:</b>	Good.
<b>Erosion Potential:</b>	
<b>Water:</b>	Low
<b>Wind:</b>	Moderately low due to light textured surface.

## 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> 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	7.2	6.8	0	0.08	0.80	0.8	31	400	9	1.1	0.53	6	17.3	5.92	7.0	4.26	1.04	0.10	0.84	1.4
0-11	8.0	7.5	0	0.11	0.99	0.6	17	383	9	1.1	-	-	-	-	6.5	4.22	1.01	0.10	0.84	1.5
11-25	8.1	7.4	0	0.04	0.33	0.3	6	374	3	1.1	-	-	-	-	6.8	4.63	0.94	0.09	0.79	1.3
25-30	8.8	8.2	0.6	0.08	0.28	0.3	5	382	3	1.4	-	-	-	-	6.5	5.10	1.09	0.11	0.83	1.7
30-60	8.9	8.3	1.2	0.12	0.38	0.3	4	791	5	3.4	-	-	-	-	11.9	6.19	4.33	0.38	1.89	3.2
60-100	8.6	8.0	1.8	0.29	0.67	0.2	<4	955	12	9.6	-	-	-	-	9.4	2.53	3.90	2.14	2.16	22.8
100-160	9.9	8.9	1.3	0.48	3.40	0.1	<4	320	37	10.3	-	-	-	-	5.1	1.21	1.54	2.77	0.58	54.3

**Note:** Paddock sample bulked from 20 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.

**Further information:** [DEWNR Soil and Land Program](#)

