

BLEACHED SAND OVER SANDY CLAY LOAM

General Description: *Very thick loose bleached sand over a brownish sandy clay loam to clayey sand.*

Landform: Undulating rises.

Substrate: Medium to coarse grained
Tertiary deposits, mantled by
fine carbonate.

Vegetation:



Type Site:	Site No.:	MO011	1:50,000 mapsheet:	6727-4 (Monarto)
	Hundred:	Mobilong	Easting:	335090
	Section:	214	Northing:	6111060
	Sampling date:	1976	Annual rainfall:	385 mm average

Upper slope of gently undulating rise, 3% slope. Loose surface, no stones.

Soil Description:

Depth (cm)	Description
0-12	Dark greyish brown loose sand. Clear to:
12-42	White loose sand. Gradual to:
42-66	Pale brown soft massive sand. Sharp to:
66-76	Brown friable loamy sand with weak coarse columnar structure. Gradual to:
76-85	Strong brown very hard massive sandy clay loam. Gradual to:
85-100	Yellowish red, white and brownish yellow massive very hard calcareous sandy clay loam with 2-10% fine carbonate segregations. Diffuse to:
100-200	As for 85-100 cm, but with 20-50% fine carbonate segregations. Diffuse to:
200-360	Yellowish red, brownish yellow and white massive very hard calcareous sandy clay loam with 2-10% fine carbonate.



Classification: Hypercalcic, Subnatric, Brown Sodosol; very thick, non-gravelly, sandy/clay loamy, very deep



Summary of Properties

- Drainage:** Well drained. The soil rarely remains wet for more than a day or so at a time.
- Fertility:** Inherent fertility is low due to low clay content (low nutrient retention capacity). Apart from nitrogen and phosphorus, deficiencies of sulphur, copper, zinc and manganese can be expected.
- pH:** Neutral at the surface, strongly alkaline with depth.
- Rooting depth:** Not recorded. Estimate 85 cm in pit.
- Barriers to root growth:**
- Physical:** The hard massive sandy clay loam subsoil significantly impedes root growth.
 - Chemical:** High pH and sodicity from 100 cm restrict deeper root growth.
- Waterholding capacity:** Approximately 80 mm in the rootzone.
- Seedling emergence:** Satisfactory except in seasons when water repellence is a problem.
- Workability:** The sandy surface is easily worked.
- Erosion Potential:**
- Water:** Moderately low.
 - Wind:** High.

Laboratory Data

Depth cm	Coarse sand %	Fine sand %	Silt %	Clay %	pH H ₂ O	CO ₃ %	EC 1:5 dS/m	Cl mg/kg	CEC cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
										Ca	Mg	Na	K	
0-12	56	40	1	2	7.0	0	<0.06	<50	3.5	2.6	0.51	0.10	0.27	na
12-42	60	37	0	3	8.2	0	<0.06	<50	2.5	1.9	0.36	0.12	0.12	na
76-85	33	42	1	23	9.0	0	0.10	<50	9.6	4.2	3.5	1.1	0.82	11.4
85-100	33	41	0	24	9.4	1	0.18	<50	11.7	4.7	4.4	1.5	1.1	12.8
200-360	35	40	0	21	10.0	1	0.45	130	11.0	2.3	4.3	3.4	0.99	30.1

Note: CEC (cation exchange capacity) is a measure of the soil's capacity to store and release major nutrient elements. CEC at this site is estimated from the sum of exchangeable cations.
ESP (exchangeable sodium percentage) is derived by dividing the exchangeable sodium value by the CEC.

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

