

## BLEACHED SILICEOUS SAND

**General Description:** *Thick bleached sand with an organically darkened surface and a yellow or brown sandy subsoil at moderate depth*

**Landform:** Gently undulating plain with irregular sandhills.

**Substrate:** Windblown Molineaux Sand.

**Vegetation:** Mallee heath



<b>Type Site:</b>	Site No.:	MM086	1:50,000 mapsheet:	6726-1 (Meningie)
	Hundred:	Bonney	Easting:	354200
	Section:	170	Northing:	6045900
	Sampling date:	1992	Annual rainfall:	470 mm average

Crest of moderate sandhill, 10% slope. Loose surface, no stones.

### Soil Description:

Depth (cm)	Description
0-12	Dark greyish brown loose single grain sand. Abrupt to:
12-24	Greyish brown (bleached when dry) loose single grain sand. Clear to:
24-60	Yellowish brown loose single grain sand. Diffuse to:
60-100	Orange, red and light grey loose single grained sand. Diffuse to:
100-210	Orange, red and light grey loose single grained sand.



**Classification:** Basic, Arenic, Bleached-Orthic Tenosol; medium, non-gravelly, sandy / sandy, very deep



## Summary of Properties

- Drainage:** Rapidly drained. Soil never remains wet for more than a few hours.
- Fertility:** Inherent fertility is very low, as indicated by the exchangeable cation data. Phosphorus, nitrogen, copper and zinc deficiencies can be expected. Manganese required by lupins. Organic carbon concentrations are also below ideal at sampling site.
- pH:** Acidic at the surface, slightly acidic at depth.
- Rooting depth:** 60 cm in pit.
- Barriers to root growth:**
- Physical:** No physical barriers.
- Chemical:** No chemical barriers. Low nutrient retention capacity is the main reason for lack of root penetration.
- Waterholding capacity:** 40 mm in rootzone.
- Seedling emergence:** Satisfactory, but can be reduced by water repellence in dry years.
- Workability:** Soft / loose surface is easily worked.
- Erosion Potential:**
- Water:** Low.
- Wind:** Moderately high.

## 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	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	5.8	5.0	<1	0.02	0.16	0.70	6.0	31	0.2	-	-	-	-	2.3	2.06	0.36	0.24	0.07	na
0-12	5.8	5.4	0	0.02	0.14	0.52	6.8	420	0.2	-	-	-	-	1.6	1.48	0.22	0.20	0.08	na
12-24	5.8	5.2	0	0.02	0.09	0.19	5.0	270	0.1	-	-	-	-	1.4	1.02	0.13	0.22	0.07	na
24-60	6.3	6.1	0	0.02	0.09	0.12	2.6	140	0.2	-	-	-	-	1.3	1.06	0.16	0.26	0.12	na
60-100	6.3	6.0	0	0.01	0.08	0.04	2.2	110	0.1	-	-	-	-	1.4	0.68	0.24	0.16	0.07	na
100-150	6.6	6.2	0	0.02	0.10	0.02	<2.0	130	0.2	-	-	-	-	1.4	0.78	0.38	0.21	0.14	na
150-210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**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.

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

