DEEP BLEACHED SILICEOUS SAND

General Description: *Very thick bleached siliceous sand, becoming yellower or redder with depth*

Landform: Dunefield of moderate to high jumbled sandhills

Substrate: Windblown Molineaux Sand.

Vegetation: Mallee.

Type Site:

Site No.:	MM028	1:50,000 mapsheet:	6927-1 (Kulkami)
Hundred:	Cotton	Easting:	440350
Section:	118	Northing:	6112700
Sampling date:	20/11/1991	Annual rainfall:	330 mm average

Crest of high sandhill. Loose surface, no stone.

Soil Description:

Depth (cm)	*Description*
0-7	Brownish yellow loose sand (drift). Sharp to:
7-19	Brown loose sand. Clear to:
19-79	Bleached loose sand. Clear to:
79-99	Reddish yellow soft loamy sand with lamellae of yellowish brown sandy loam. Sharp to:
99-157	Orange soft sand with lamellae of yellowish red sandy loam. Diffuse to:
157-217	Orange soft loamy sand.

Classification: Basic, Argic, 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 cations data and low clay and organic carbon contents. Phosphorus, nitrogen, potassium, copper, zinc and manganese are all likely to be deficient.

pH: Neutral to slightly acidic at the surface, neutral with depth.

Rooting depth: 40 cm in pit.

Barriers to root growth:

Physical: No physical barriers.

Chemical: No chemical barriers, other than very low nutrient status and retention capacity.

Waterholding capacity: 25 mm in rootzone.

Seedling emergence: Usually reduced by water repellence.

Workability: Loose sand is easily worked.

Erosion Potential:

Water: Low.

Wind: Very high to extreme.

Laboratory Data

Depth cm	pH H_2O	pH $CaCl_2$	CO_3 %	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	
0-7	7.3	7.2	<1	0.02	0.17	0.1	7	48	3.0	<0.05	3.3	0.18	<0.06	1.0	0.86	0.36	0.14	0.11	na
7-19	6.6	6.6	<1	0.02	0.14	0.3	4	<40	<0.50	<0.05	11	<0.06	<0.06	0.9	0.97	0.26	0.09	0.06	na
19-47	6.9	7.0	<1	0.02	0.08	0.1	<2	<40	1.2	<0.05	6.1	<0.06	<0.06	0.7	0.77	0.23	0.12	0.04	na
47-79	6.9	6.9	<1	0.01	0.08	<0.1	<2	<40	1.0	<0.05	5.1	<0.06	<0.06	0.8	0.73	0.32	0.12	0.04	na
79-99	7.1	7.0	<1	0.01	0.06	<0.1	<2	<40	<0.50	<0.05	2.7	<0.06	<0.06	1.0	0.85	0.41	0.14	0.05	na
99-127	7.0	7.1	<1	0.01	0.06	<0.1	<2	<40	<0.50	<0.05	3.1	<0.06	<0.06	1.7	0.96	0.80	0.10	0.07	na
127-157	7.1	6.8	1	0.01	0.09	<0.1	<2	54	<0.50	<0.05	2.8	<0.06	<0.06	2.6	1.28	1.58	0.16	0.08	na
157-217	7.5	6.9	1	0.01	0.07	<0.1	<2	50	<0.50	<0.05	1.7	<0.06	<0.06	2.4	1.10	1.32	0.16	0.08	na

Note: 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