

DEEP SAND

General Description: *Thick red sand becoming slightly more clayey with depth, and with variable deep subsoil carbonate*

Landform: Dunefields

Substrate: Molineaux Sand

Vegetation: Mallee



Type Site:	Site No.:	MM004	1:50,000 mapsheet:	6928-3 (Halidon)
	Hundred:	McPherson	Easting:	430700
	Section:	38	Northing:	6138800
	Sampling date:	05/09/1991	Annual rainfall:	305 mm average

Crest of low to moderate sandhill. Loose surface with no stones.

Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
0-5	Loose orange sand (recent drift). Sharp to:
5-22	Loose brown sand. Sharp to:
22-40	Loose brown sand. Sharp to:
40-70	Loose orange loamy sand. Diffuse to:
70-100	Loose orange loamy sand. Diffuse to:
100-130	Soft orange loamy sand. Abrupt to:
130-155	Yellowish red soft sand with clayey sand lamellae and minor fine calcareous segregations. Abrupt to:
155-190	Yellowish red soft loamy sand with minor fine calcareous segregations.



Classification: Calcareous, Argic, Brown-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 low, as indicated by the exchangeable cation data. Low clay and organic matter contents limit nutrient retention capacity. Phosphorus, copper and zinc are deficient at sampling site.
pH:	Neutral at the surface, alkaline with depth.
Rooting depth:	70 cm in pit.
Barriers to root growth:	
Physical:	None.
Chemical:	Low fertility and low nutrient retention capacity.
Waterholding capacity:	Approximately 40 mm.
Seedling emergence:	Good, except where water repellence prevents even wetting.
Workability:	Easily worked, although the risk of erosion is high.
Erosion Potential:	
Water:	Low
Wind:	Moderately high.

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	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	7.1	6.1	<1	0.03	0.22	0.3	2	97	<0.5	<0.03	4.9	1.4	<0.05	2.5	2.55	0.53	0.14	0.16	na
0-5	7.6	6.4	1	0.02	0.19	0.2	3	80	<0.5	<0.05	3.6	0.84	0.13	1.5	1.37	0.36	0.15	0.10	na
5-22	6.8	5.7	<1	0.02	0.13	0.3	3	72	<0.5	<0.05	8.7	2.5	0.13	2.4	1.67	0.37	0.16	0.11	na
22-40	7.5	6.5	1	0.02	0.13	0.2	<2	75	<0.5	<0.05	4.6	0.51	0.14	2.9	2.23	0.49	0.15	0.10	na
40-70	7.8	7.0	<1	0.02	0.19	<0.1	<2	55	<0.5	<0.05	3.4	<0.06	0.38	2.7	2.11	0.61	0.16	0.08	na
70-100	8.0	7.2	5	0.02	0.11	<0.1	<2	42	<0.5	<0.05	2.8	0.08	0.27	2.9	2.05	0.92	0.17	0.08	na
100-130	7.8	7.0	<1	0.02	0.16	<0.1	<2	52	<0.5	<0.05	2.6	0.09	0.31	3.8	2.37	1.24	0.16	0.09	4.2
130-155	8.3	7.3	<1	0.03	0.24	<0.1	3	87	<0.5	<0.05	2.3	0.07	0.49	8.3	4.65	2.81	0.33	0.17	4.0
155-190	9.2	8.1	<1	0.07	0.36	<0.1	<2	77	<0.5	<0.05	1.6	0.14	0.13	4.6	3.14	1.79	0.27	0.15	5.9

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](#)

