

DEEP SAND

General Description: *Loose red brown sand becoming redder and weakly calcareous with depth*

Landform: Dunefield

Substrate: Windblown Molineaux Sand

Vegetation: Mallee



Type Site:	Site No.:	MM051	1:50,000 mapsheet:	6828-4 (Swan Reach)
	Hundred:	Forster	Easting:	382850
	Section:	169	Northing:	6157600
	Sampling date:	03/08/1992	Annual rainfall:	290 mm average

Crest of low dune, 4% slope. Soft surface, no stones.

Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
0-11	Reddish brown loose light sandy loam. Clear to:
11-45	Yellowish red soft loamy sand. Gradual to:
45-85	Yellowish red soft loamy sand. Diffuse to:
85-140	Yellowish red moderately calcareous soft loamy sand. Clear to:
140-185	Yellowish red highly calcareous soft loamy sand.
	Minor quartz grit throughout.



Classification: Calcareous, Arenic, Red-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, and low clay and organic matter contents. Deficiencies of phosphorus, nitrogen, zinc, copper and manganese can be expected, and all (nitrogen not tested) are deficient or marginal at the sampling site.
- pH:** Neutral at the surface, alkaline with depth.
- Rooting depth:** 180 cm in pit, but few roots below 45 cm.
- Barriers to root growth:**
- Physical:** No physical barriers.
 - Chemical:** No chemical barriers. Low nutrient status and retention capacity are causing low root densities.
- Waterholding capacity:** Approximately 45 mm at sampling site.
- Seedling emergence:** Satisfactory, except in water repellency years.
- Workability:** Soft / loose surface is easily worked.
- 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	7.0	6.8	-	0.05	0.22	0.43	6	100	0.5	0.1	5.9	1.9	0.2	2.3	2.4	0.6	0.13	0.13	na
0-11	7.0	6.8	-	0.05	0.19	0.33	<5	89	0.4	0.1	4.3	1.7	0.3	2.4	2.4	0.5	0.09	0.12	na
11-45	8.9	8.5	0.1	0.07	0.18	0.08	<5	72	0.4	0.1	2.6	0.2	0.4	2.0	2.0	0.3	0.12	0.10	na
45-85	8.9	8.4	0.1	0.08	0.20	0.07	<5	65	0.7	0.1	2.7	0.1	0.3	4.1	2.9	0.8	0.10	0.16	2.4
85-140	9.0	8.4	1.1	0.09	0.24	0.10	<5	82	0.6	0.2	1.7	0.1	0.5	3.7	2.6	1.5	0.11	0.14	3.0
140-185	9.1	8.6	0.9	0.09	0.26	0.04	<5	120	0.6	0.1	1.4	0.1	0.4	2.6	1.4	1.4	0.12	0.19	na

- 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](#)

