DEEP SAND

General Description: *Very thick siliceous sand with a pale or bleached A2 layer and a stronger coloured subsoil*

Landform: Undulating dunefield.

Substrate: Windblown Molineaux Sand.

Vegetation: Mallee / heath

Type Site: Site No.: MM073

1:50,000 sheet:	6827-3 (Moorlands)	Hundred:	Roby
Annual rainfall:	425 mm	Sampling date:	10/10/92
Landform:	Slope of high sandhill, 16% gradient		
Surface:	Loose with no stones		

Soil Description:

Depth (cm)	*Description*
0-15	Dark greyish brown loose single grain sand. Clear to:
15-32	Brown loose single grain sand. Diffuse to:
32-80	Light brown and yellowish red with bleached speckles, loose single grain sand. Diffuse to:
80-230	Brownish yellow, reddish yellow and light grey loose single grain sand.

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

Summary of Properties

Drainage Rapidly drained. Soil is never saturated for more than a few hours.

Fertility Inherent fertility is very low, as indicated by the exchangeable cation data, low clay and organic carbon concentrations. Phosphorus, nitrogen, copper and zinc deficiencies can be expected - all are marginal at sampling site. Manganese required by lupins.

pH Neutral throughout.

Rooting depth 90 cm in pit.

Barriers to root growth

Physical: No physical barriers.

Chemical: No chemical barriers, but low nutrient retention capacity limits root growth.

Water holding capacity 55 mm in root zone.

Seedling emergence: Reduced by water repellence.

Workability: Loose surface is easily worked.

Erosion Potential

Water: Low.

Wind: High to extreme.

Laboratory Data

Depth cm	pH H_2O	pH $CaC1_2$	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	7.2	6.8	<1	0.03	0.25	0.4	15	59	<0.4	0.18	14	1.5	0.6	2.2	2.20	0.41	0.06	0.12	na
0-15	6.9	6.4	<1	0.02	0.2	0.5	13	54	<0.4	0.12	18	1.8	0.54	2.0	1.68	0.29	0.05	0.08	na
15-32	6.6	6.3	<1	0.02	0.12	0.2	6	43	<0.4	<0.05	27	0.33	<0.06	1.6	0.89	0.22	0.05	0.06	na
32-80	7.3	6.9	<1	0.01	0.11	<0.1	<2	42	<0.4	<0.05	13	<0.06	<0.06	1.3	0.50	0.19	0.06	0.21	na
80-120	7.2	6.9	<1	0.01	0.09	<0.1	<2	<40	<0.4	<0.05	8.1	<0.06	<0.06	1.3	0.51	0.25	0.05	0.04	na
120-180	7.2	7.1	<1	0.01	0.08	<0.1	<2	<40	0.71	<0.05	7.4	<0.06	<0.06	1.2	0.44	0.26	0.05	0.04	na
180-230	7.1	7.0	<1	0.01	0.08	<0.1	<2	<40	0.41	<0.05	6.2	<0.06	<0.06	1.3	0.45	0.30	0.04	0.04	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.