

BLEACHED SILICEOUS SAND

General Description: *Thick to very thick bleached loose sand with an organically darkened surface and a yellow or brown sandy subsoil overlying more clayey material at variable depth*

Landform: Slopes and crests of undulating dunefields

Substrate: Massive sandy loam to sandy clay loam, probably the subsoil of a buried sandy texture contrast soil

Vegetation: Euc. baxteri scrub



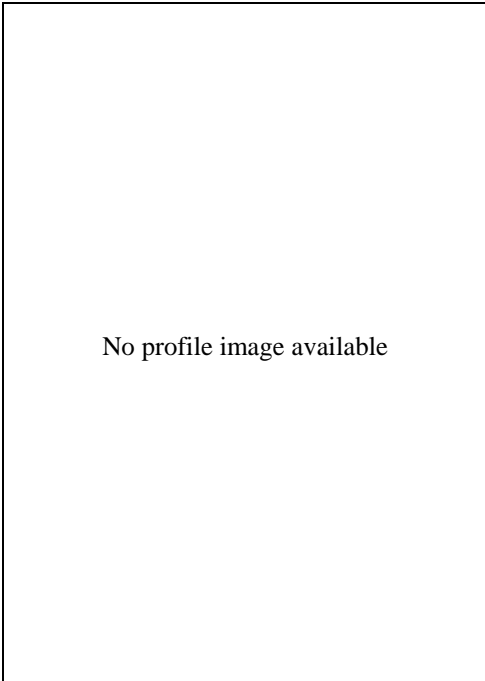
Type Site: Site No.: SE007

1:50,000 sheet:	6925-1 (Keith)	Hundred:	Archibald
Rainfall:	475 mm	Sampling date:	04/08/92
Landform:	Dune slope, loose surface, 20% slope with southerly aspect		
Surface:	Loose with no stones		

Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
0-15	Loose grey sand (recent drift). Clear to:
15-30	Loose dark grey sand. Clear to:
30-115	Bleached loose sand. Gradual to:
115-185	Yellow and white speckled loose sand. Sharp to:

185-200	Orange and yellow massive firm light sandy clay loam (B horizon of a buried soil)



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

Summary of Properties

Drainage	Rapidly drained. The profile is never saturated.
Fertility	Natural fertility is very low, due to the low clay content. Any capacity to store nutrients is provided by organic matter. In sandy soils, more than 1% organic carbon is needed. The pit site is in an area fenced off from the main paddock, so nutrient levels are very low (refer values for phosphorus, potassium, sulphur and boron). The calcium : magnesium is satisfactory, but absolute values are low, so these elements, along with trace elements are also likely to be deficient.
pH	Acidic at the surface, neutral with depth.
Rooting depth	150 cm in pit.
Barriers to root growth	
Physical:	No physical barriers.
Chemical:	Lack of nutrients and low storage capacity are the main chemical limitations to root growth.
Water holding capacity	Approximately 100 mm in root zone.
Seedling emergence:	Good to fair depending on water repellence which can be severe in some seasons. The upper three layers are repellent.
Workability:	Good.
Erosion Potential	
Water:	Low.
Wind:	High due to the low fertility, water repellent sandy surface, and exposed position on sand dune.

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	SO ₄ -S 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	6.6	6.2	0	0.05	0.18	1.00	12	103	-	0.6	0.5	34	3.1	2.3	5.1	4.31	0.51	0.30	0.23	5.9
0-15	6.1	5.9	0	0.05	0.27	0.67	14	102	-	0.6	0.4	18	2.2	2.2	3.6	2.63	0.43	0.25	0.10	6.9
15-30	6.1	5.7	0	0.08	0.53	0.48	9	137	-	0.5	0.7	33	3.5	1.4	3.3	3.36	0.40	0.21	0.10	6.4
30-115	6.7	6.6	0	0.04	0.16	0.42	<5	93	-	0.1	<0.1	19	0.1	0.1	1.6	0.55	0.18	0.35	0.11	na
115-185	6.8	6.5	0	0.04	0.08	0.31	<5	49	-	0.2	<0.1	8	<0.1	0.1	1.5	0.65	0.27	0.42	0.13	na
185-200	7.4	6.8	0	0.08	0.23	0.11	<5	139	-	0.7	0.4	16	0.3	0.1	9.6	4.79	2.99	0.48	0.39	5.1

Note: Paddock sample bulked from 20 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.