

HIGHLY LEACHED SAND

General Description: *Grey sand over pale bleached sand on dark brown 'pipey' coherent sand grading to yellow sand.*

Landform: Undulating dune range

Substrate: Sand

Vegetation: -



Type Site: Site No.: SE081

1:50,000 sheet: 6922-1 (Millicent) Hundred: Riddoch
Annual rainfall: 775 mm Sampling date: 29/09/04
Landform: Mid-slope of moderately inclined range, 10% slope
Surface: Loose with no stones

Soil Description:

<i>Depth (cm)</i>	<i>Description</i>
50-0	Drift/ disturbed material
0- 30	Grey soft single grain fine sand. Diffuse change to:
30-50	Pale brown bleached single grain fine sand. Clear change to:
50-70	Very dark greyish brown coherent single grain fine sand with pipey structure. Diffuse change to:
70-130	Dark reddish brown single grain fine sand with coarse brown mottles. Diffuse change to:
130-220	Yellowish brown single grain fine sand with coarse very dusky red patches. Continues.



Classification: Fragic, Pipey, Aeric Podsol; thick, non-gravelly, sandy/sandy, very deep

Summary of Properties

- Drainage:** Rapidly (excessively) drained. Soil never remains wet for more than a few hours.
- Fertility:** Inherent fertility is low, reflected in low sum of cations. Phosphorus, potassium, sulphate and trace element concentrations are all very low.
- pH:** Strongly acidic. Low buffering capacity means that these soils can quickly become strongly acidic.
- Rooting depth:** More than 220 cm in exposure.
- Barriers to root growth:**
- Physical:** Nil
- Chemical:** Nil
- Water holding capacity:** Approximately 150 mm.
- Seedling emergence:** No problems, except where water repellent, but seedlings may be affected post emergence by sand blasting.
- Workability:** Easily worked over a range of moisture conditions, but dry working predisposes surface to wind erosion.

Erosion Potential

- Water:** Low
- Wind:** High

Laboratory Data

Depth cm	pH H ₂ O	pH CaCl ₂	CO ₃ %	EC 1:5 dS/m	ECe dS/m	Org.C %	Avail. P mg/kg	Avail. K mg/kg	Cl mg/kg	SO ₄ -S mg/kg	Boron mg/kg	Trace Elements mg/kg (EDTA)				Sum cations cmol (+)/kg	Exchangeable Cations cmol(+)/kg				ESP
												Cu	Fe	Zn	Mn		Ca	Mg	Na	K	
0-30	5.6	4.5	0	0.01	0.06	0.6	4	26	4	2.3	0.1	<.05	224	0.4	1.1	0.9	0.69	0.12	0.04	0.07	na
30-50	6.2	4.9	0	0.01	0.04	0.2	6	30	1	1.8	<0.1	<.05	54	0.2	0.5	0.5	0.38	0.07	0.02	<.01	na
50-70	5.2	3.9	0	0.01	0.11	0.4	5	26	2	2.0	0.1	0.2	64	3.4	0.4	0.8	0.58	0.14	0.04	0.06	na
70-130	5.8	4.7	0	0.01	0.07	0.5	3	27	3	1.8	<0.1	0.1	23	0.2	0.2	0.3	0.20	0.04	0.03	<.01	na
130-220	5.9	4.9	0	0.01	0.06	0.3	3	19	1	2.2	<0.1	<.05	18	<.05	<0.1	0.2	0.16	0.02	0.02	0.04	na

Note: Sum of cations, in a neutral to alkaline soil, approximates the CEC (cation exchange capacity), 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. In this case, ESP is meaningless due to very low CEC.