SITE: GL9	**Land unit:** Merino Tablelands
Aust. Soil Class.: Vertic, Eutrophic, Brown CHROMOSOL (confidence level 1)	

General Land Unit Description:
This unit consists of the Cretaceous non-marine sandstone of the dissected Merino Tablelands. The tablelands were thought to have formed under swamp conditions and a warm climate. As a result, the soils tend to be high in clay and there tends to be carbon rich seams of charcoal deposits at depth in some of the profiles. The main soil type used to represent this land unit is black cracking clays (Vertosols) that can be sodic at depth. This soil type, along with Black Sodosols, Chromosols and Dermosols, are commonly found on the broad crests or drainage lines. The slopes often consist of Brown Chromosols, Sodosols or Dermosols, although black soils can also occur on the slopes. The lower slopes commonly have Grey Vertosols or Sodosols as the major soil type. The reasonably deep sodic soils on short steep slopes tend to be prone to landslips. The grey soils, in particular are prone to water erosion.

Site Description:
Slope: 5%
Geology: Cretaceous non-marine sandstone **Landform pattern:** Undulating rises
Position in landscape: Upper slope **Internal drainage:** Imperfectly drained

Soil Profile Morphology:

Topsoil

A1 0-15 cm Very dark brown (10YR2/2) *organic loam*, strong subangular blocky structure (2-5 mm), firm consistence when dry, pH 5.5; transition to:

A12 15-45 cm Black (10YR2/1) *organic clay loam*, weak structure, firm consistence when dry, pH 5.8; clear transition to:

Subsoil

B1 45-65 cm Very dark grey (10YR3/1) *light clay*, massive structure, very firm consistence when dry, pH 6.2; clear transition to:

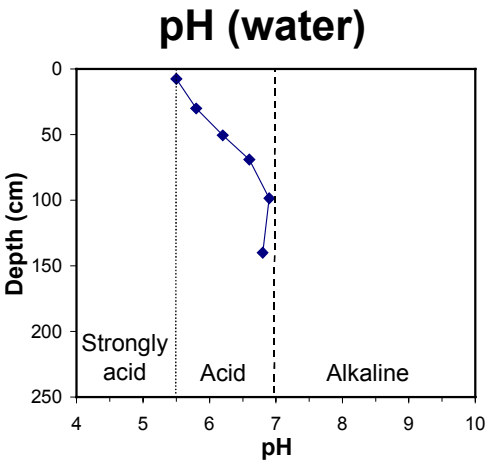
B21 65-85 cm Very dark greyish brown (10YR3/2) *light medium clay*, sporadically bleached (10YR6/2) when dry, a few oxidised root mottles, moderate prismatic (20-30 mm) to subangular blocky structure (5-10 mm), strong consistence when dry, pH 6.6; clear transition to:

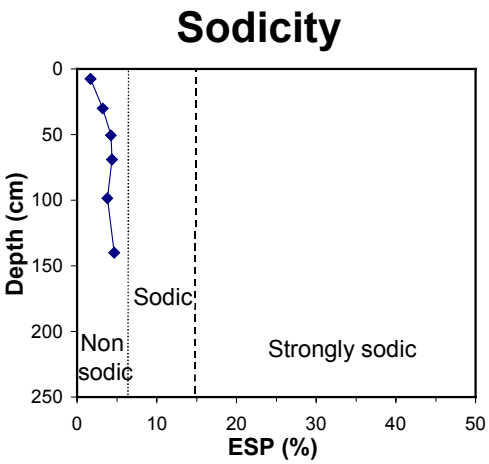
B22 85-115 cm Very dark greyish brown (10YR3/2) *fine sandy loam*, moderate subangular blocky structure, strong consistence when dry, sand veins and organic staining present, pH 7; clear transition to:

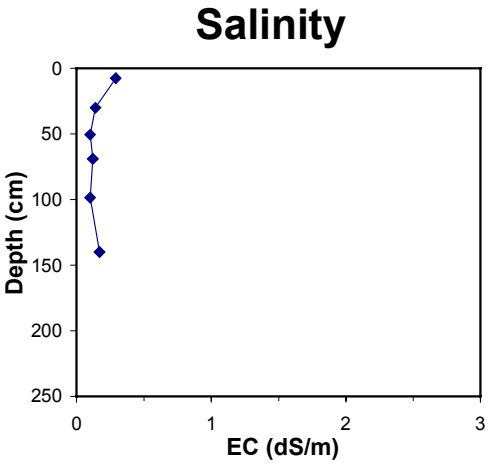
B3 115-180 cm *Fine sandy clay loam*, moderate prismatic to subangular blocky structure (5-10 mm), very strong consistence when dry, ferromanganiferous concretions are abundant, sand veins and organic staining present, pH 7.

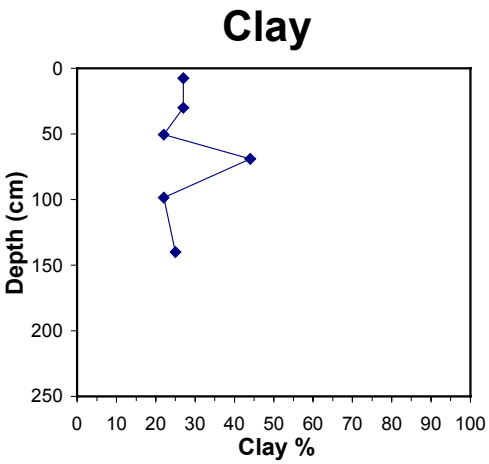
Key profile features:

- Ferromanganiferous pan at depth
- Acidic topsoil
- Subsoil cracks
- Deeper topsoil dispersive when worked when wet
- Subsoil dispersive when worked when wet


pH (water)
Depth (cm)
0
50
100
150
200
250
Strongly acid
Acid
Alkaline
4
5
6
7
8
9
10
pH


Sodicity
Depth (cm)
0
50
100
150
200
250
Sodic
Non sodic
Strongly sodic
0
10
20
30
40
50
ESP (%)


Salinity
Depth (cm)
0
50
100
150
200
250
0
1
2
3
EC (dS/m)


Clay
Depth (cm)
0
50
100
150
200
250
0
10
20
30
40
50
60
70
80
90
100
Clay %