

Site code<sup>1</sup> OTR735



**Location** Separation Creek  
**Landform** Hill  
**Geology** Cretaceous Otway Group  
**Element** Mid slope  
**Slope** 40%  
**Aspect** Easterly

Remnant vegetation on steep slopes

Horizon	Depth (cm)	Description
A1	0–5	Black (10YR2/1); clay loam; moderate crumb structure; clear smooth boundary to:
A2	5–30	Dark greyish brown (10YR4/2 moist); light brownish grey (10YR6/2 dry); clay loam; weak angular blocky structure; clear smooth boundary to:
B21	30–60	Dark greyish brown (10YR4/2) with yellowish brown (10YR5/6) mottles; medium clay; moderate very fine (4 mm) angular blocky structure; diffuse boundary to:
B22	60–90	Greyish brown (10YR5/2) with yellow (10YR7/8) mottles; medium clay; strong very fine (4 mm) angular blocky structure; clear wavy boundary to:
B3	90–128	Greyish brown (2.5YR5/2) with yellow (2.5YR7/8) mottles; light clay; moderate angular blocky structure; abundant weathering sandstone boundary to:
C	128+	Weathering with lenses of clay between joints.



Bleached-Sodic, Magnesic, Brown Kurosol

<sup>1</sup> Source: Pitt AJ (1981) A study of the land in the catchments of the Otway Range and adjacent plains. TC-14. Soil Conservation Authority. Kew, Victoria

## Analytical data<sup>2</sup>

Site OTR735 Horizon	Sample depth cm	pH		EC dS/m	NaCl %	Ex Ca cmol <sub>c</sub> /kg	Ex Mg cmol <sub>c</sub> /kg	Ex K cmol <sub>c</sub> /kg	Ex Na cmol <sub>c</sub> /kg	Ex Al mg/kg	Ex Acidity cmol <sub>c</sub> /kg	FC -10kPa %	PWP -1500kPa %	KS %	FS %	Z %	C %
		H <sub>2</sub> O	CaCl <sub>2</sub>														
A1	0-5	5.3	N/R	0.110	0.012	1.4	3.0	1.0	0.7	N/R	N/R	N/R	N/R	4	25	37	25
A2	10-20	4.9	N/R	0.130	0.020	0.2	3.9	0.6	0.9	N/R	N/R	N/R	N/R	2	21	35	36
A2	20-30	5.4	N/R	0.083	0.010	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
B21	30-60	5.4	N/R	0.098	0.013	0.1	11.6	0.9	2.2	N/R	N/R	N/R	N/R	0.4	6	23	64
B22	60-90	5.4	N/R	0.120	0.018	0.1	15.0	0.7	3.2	N/R	N/R	N/R	N/R	0.4	7	24	63
B3	90-120	5.6	N/R	0.120	0.015	0.3	17.0	0.4	4.6	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
C	128-150	5.7	N/R	0.130	0.016	0.6	14.0	0.4	4.2	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R

## Management considerations

The texture contrast between the surface soil and the subsoil can have a major effect by reducing and/or redirecting the internal drainage and restricting root growth beyond the upper horizons. Acidic surface soils (topsoil) are often associated with sandy surfaces due to the lack of base minerals and may or may not have organic matter (humose or peaty surfaces). This can restrict the uptake of certain nutrients as well as intolerance for some plant species (due in part to the increasing mobilisation of aluminium and manganese). The sodic subsoil may result in dispersion (and subsequent clogging of pores), restricting water and gas movement through the subsoil. Yellow mottling in the subsoil is an indication of periodic waterlogging/imperfect drainage.

<sup>2</sup> Source: Government of Victoria State Chemistry Laboratory.