Site code[1] **OTR414**

Steep Hills on Red Johanna Road

Location Johanna (Junction of Red Johanna Road and Great Ocean Road)

Landform Hills

Geology Cretaceous sediments

Element Upper slope - ridge

Slope 4%

Aspect South-east

Melacic, Mesotrophic, Black Dermosol

Horizon	Depth (cm)	Description
A1	0–13	Very dark brown (10YR2/2); loam; moderate subangular blocky structure; clear boundary to:
A3	13–45	Very dark brown (10YR2/2); clay loam; moderate to strong angular blocky structure; diffuse boundary to:
B2	45–90	Very dark greyish brown (10YR3/2); heavy clay; moderate coarse (40 mm) angular blocky structure; diffuse boundary to:
C	90+	Yellowish brown (10YR5/8) and grey (10YR6/1) mottled medium clay, apedal massive structure.

[1] 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[2]

Site OTR414	Sample depth	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex Acidity	FC –10kPa	PWP –1500kPa	KS	FS	Z	C
Horizon	cm	H_2O	$CaCl_2$	dS/m	%	$cmol_c/kg$	$cmol_c/kg$	$cmol_c/kg$	$cmol_c/kg$	mg/kg	$cmol_c/kg$	%	%	%	%	%	%
A1	0-8	5.1	N/R	0.120	0.011	4.8	2.9	0.4	0.2	N/R	N/R	N/R	N/R	14	40	23	18
A1	8-13	5.2	N/R	0.093	0.009	3.3	2.1	0.4	0.2	N/R	N/R	N/R	N/R	14	39	22	21
A3	13-30	5.3	N/R	0.063	0.004	1.7	4.6	0.4	0.2	N/R	N/R	N/R	N/R	11	35	18	35
B2	30-45	5.3	N/R	0.063	0.004	1.6	3.9	0.5	0.2	N/R	N/R	N/R	N/R	7	29	14	49
C	90-120	5.1	N/R	0.065	0.004	0.6	6.6	0.6	0.3	N/R	N/R	N/R	N/R	1	18	11	68

Management considerations

The gradational (earths) or medium textured soils (loams) nature of the soil profiles are often preferred due to their low physical limitations, but remains dependent on any chemical or depth restrictions. The friable nature of the soil occurs where there is a build up of organic matter. Acidic soil horizons reflects the high rainfall and 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). Deficiencies of calcium, potassium and molybdenum are likely.

[2] Source: Government of Victoria State Chemistry Laboratory.