

Site code¹	MM5116
Location	Freshwater Creek (Willowite Road), Torquay district, south-west Victoria
Landform	Gently undulating rises
Geology	Neogene Hanson Plain Sand: fluvial and marginal marine deposits; <i>gravel, sand, silt</i>
Element	Crest

Profile morphology

Horizon	Depth (cm)	Description
A1	0–15	Very dark brown (10YR2/2); sandy loam; very weak consistence (dry); clear boundary to:
A2	15–35	Brown (10YR5/3), conspicuously bleached, light grey (10YR7/2 dry); sandy loam; many fine segregations; sharp boundary to:
B21	35+	Yellowish brown (10YR5/6) with red (25YR46) mottles; medium clay; strong fine blocky structure; firm consistence (moderately moist); many coarse segregations.

ASC: Ferric, Mottled-Subnatric, Brown Sodosol

Analytical data²

Site MM5116 Horizon	Sample depth cm	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex acidity
		H ₂ O	CaCl ₂	dS/m	%	cmol _c /kg	cmol _c /kg	cmol _c /kg	cmol _c /kg	mg/kg	cmol _c /kg
A1	0–15	5.3	N/R	0.06	N/R	0.8	0.8	0.1	0.2	N/R	8.8
A2	15–35	5.7	N/R	0.02	N/R	0.6	0.6	0	0.1	N/R	4.1
B21	35+	6.6	N/R	0.07	N/R	1	1	0.1	1	N/R	6.6

Site MM5116 Horizon	Sample depth cm	FC (-10kPa) %	PWP (-1500kPa) %	KS %	FS %	Z %	C %	Org C %	Bulk density t m ⁻³
A1	0–15	12.6	6.1	53	28	4	9	2.5	1.39
A2	15–35	N/R	N/R	50	34	6	7	N/R	N/R
B21	35+	38.7	27.8	34	8	3	52	N/R	1.22

Management considerations

Strong texture contrast between the surface soil and the subsoil is a very important soil feature and can impact upon the permeability aspects of the profile. The surface soil is sandy, while the subsoil is sodic, mottled medium clay containing many fine and coarse segregations. Increasing the organic matter of the soil will help to retain nutrients in the loose, sandy topsoil, while the application of gypsum should improve soil structure and drainage properties down the profile.

¹ Source: Maher JM, Martin JJ 1987 Soils and landforms of south-western Victoria. Department of Agriculture and Rural Affairs. Research Report No. 40.

² Source: Government of Victoria, State Chemistry Laboratory.