

<b>Site code<sup>1</sup></b>	<b>MM5117</b>
<b>Location</b>	<b>Torquay (Messmate Road), Torquay district, south-west Victoria</b>
<b>Landform</b>	Gently undulating plateau
<b>Geology</b>	Neogene Hanson Plain Sand: fluvial and marginal marine deposits; <i>gravel, sand, silt</i>
<b>Element</b>	Flat

### Profile morphology

Horizon	Depth (cm)	Description
A1	0–20	Very dark grey (10YR3/1); loamy sand; clear boundary to:
A2	20–80	Greyish brown (10YR5/2), conspicuously bleached, light grey (10YR7/2 dry); sand; sharp boundary to:
A3	80–100	Very dark brown (10YR2/2); sand; weak dry consistence; boundary to:
B21	100+	Yellowish brown (10YR5/4); loamy sand; apedal massive structure; very weak consistence (dry).

**ASC:** Melanic-Basic, ?, Bleached-Orthic Tenosol

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

Site MM5117 Horizon	Sample depth cm	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex acidity
		H <sub>2</sub> O	CaCl <sub>2</sub>	dS/m	%	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	mg/kg	cmol <sub>c</sub> /kg
A1	0–20	5.9	N/R	0.08	N/R	2.7	2.7	0.2	0.2	N/R	5.7
A2	20–80	6.3	N/R	0.01	N/R	0.6	0.6	0	0	N/R	0.3
A3	80–100	6	N/R	0.02	N/R	0.3	0.3	0	0	N/R	4.3
B21	100+	6.1	N/R	0.02	N/R	0.2	0.2	0	0.1	N/R	2.2

Site MM5117 Horizon	Sample depth cm	FC (-10kPa) %	PWP (-1500kPa) %	KS %	FS %	Z %	C %	Org C %	Bulk density t m <sup>-3</sup>
A1	0–20	8.5	8.3	60	32	2	2	N/R	1.14
A2	20–80	N/R	N/R	63	33	1	1	N/R	N/R
A3	80–100	N/R	N/R	51	43	2	2	N/R	N/R
B21	100+	N/R	N/R	56	38	4	1	N/R	N/R

### Management considerations

This soil is a deep sandy soil and exhibits coffee rock in the subsoil. Coffee rock is a pan of variable strength that is formed where sesquioxides (iron and aluminium) and organic matter have cemented. The sandy soil material generally has poor plant water holding capacity and poor nutrient holding capacity and drains rapidly. Bleached A2 horizons (or subsurface soils) are also a key feature of this soil type. The low level of bonding between sandy soil particles renders them prone to wind, sheet and rill erosion.

Maintaining vegetative cover is important for stability of the soil surface and the application of organic matter will assist the level of bonding between soil particles.

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

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