



General Description:

On the lower slopes of Mount Macedon the red gradational soils support a tall open forest of Messmate and Narrow-leaf Peppermint. The risk of bushfires and subsequent sheet erosion is very high, particularly as these and the steeper upper slopes have a northerly aspect.

Site characteristics: Site No. 14 and 1074

Parent material		Depth seasonal	> 5 m
Age:	Devonian	watertable:	
Lithology:	Rhyodacite		
Landform		Potential recharge to	High
Pattern:	Rolling mountains	groundwater:	
Element:	Moderate slope		
Slope		Flooding risk:	Nil
common:	20%		
range:	10-30%		
Rock outcrop:	0%	Drainage:	Well drained
•		Depth to hardrock:	1.2 m
		Proportion of Shire:	1.7%

Native vegetation: Messmate, Manna Gum, Narrow-leaf Peppermint

Present land use: Forestry, recreation, low density housing

Land			Wind	Salting	Acidification	
degradation:	Sheet/rill	Gully				
Susceptibility	Very high	Very low	High	Very low	Moderate	
Incidence	Low	Nil	Nil	Nil	Low	

Soil profile characteristics:

Permeability (measured - average, range):	6000, 5000 - 50,000 mm/d
(estimated):	-
Available water capacity:	170 mm H₂O
Linear Shrinkage (B horizon):	15.2%

Soil profile description:

 A_1 Brown (7.5YR 4/2) fine sandy loam, weak subangular blocky structure 7 mm, 0-7 cm

rough fabric, few gravel fragments of rhyodacite, pH 6.1. Clear transition to

Yellowish brown (10YR 5/4) bleached (10 YR 7/4 dry) clay loam, apedal A_2 7-19 cm

massive, very strong consistence, few gravel fragments of rhyodacite, pH 6.3.

Clear transition to

Βı 19-35 cm Brown (7.5YR 5/4) light clay, moderate subangular blocky structure 7 mm

rough ped., very strong consistence, pH 6.0. Clear transition to

 B_{21} 35-65 cm Yellowish brown (10YR 5/4) medium clay, abundant distinct red mottles,

moderate angular blocky structure 15 mm, smooth fabric, pH 6.0. Gradual

transition to

Brown (10yr 5/3) medium clay, abundant distinct red mottles, moderate 65-115+ cm B_{22}

angular blocky structure 15 mm, smooth fabric, firm consistence, pH 6.3.

Soil classification:

Factual Key (Northcote): Gn 3.04

Australian Soil Classification: Bleached mottled, Mesotrophic, Brown, Dermosol, deep, thin,

loamy, non-gravelly

Unified Soil Group: CH

Interpretation of soil analyses*

Horizon	pН	Gravel	E.C.	Nutrient status	Р	K	Al	Org. matter	Dispersibility
A ₁	6.1	2	VL	M	S	S	S	Н	L
A ₂	6.3	1	VL	L	S	S	S	M	L
B ₁	6.0	1	VL	L	S	S	S	VL	L
B ₂₁	6.0	1	VL	L	S	S	S	VL	L
B ₂₂	6.3	1	VL	М	S	S	S	VL	L

H: High VL: Very Low M : Moderate VH: Very High L : Low NA: Not available S: Satisfactory D: Deficient T: Toxic Acid

Land capability assessment

Land use	Class	Major limiting feature (s)
Agriculture (CTS values)	$C_3T_4S_5$	Very high susceptibility to sheet/rill erosion (Steep slopes = Class 4)
Effluent disposal (septic tanks)	3	Moderately steep slopes
Farm dams (earthen)	5	Excessive permeability, steep slopes
Building foundations * slab * stumps/footings	4 3	Moderately steep slopes Moderate slopes