

A. GENERAL DESCRIPTION

The red granodiorite soils are generally duplex with a hardsetting sandy clay loam topsoil, an A2 horizon which is not bleached, and an abrupt transition to a mottled red clay subsoil. The land, if cleared, is highly susceptible to sheet and rill erosion due to the light textured topsoil and the steep slope. The very high water holding capacity of the soil, combined with the steep slopes makes the land very highly susceptible to mass movement. As the area is mainly vegetated the incidence is low.

SITE CHARACTERISTICS

Depth to Seas. Watertable: **Parent Material Age:** Devonian >5.0 m **Parent Material** Granodiorite Flooding Risk: Nil Lithology:

Landform Pattern: Steep hills Drainage: Well drained

Landform Element: Hillslope **Rock Outcrop:** 0-2% Slope a) common: 38% Depth to Hard Rock: >2.0 m

Grazing, partly Slope b) range: 33-56% **Present Land Use:** forested

Potential Recharge to Groundwater: Low

Major Native Vegetation Species: Broad-leaved Peppermint, Blackwood, Bracken Fern, Silver Wattle,

Messmate, Manna Gum

LAND DEGRADATION

Land Degradation	Water Erosion		Wind	Mass	Salting	Acidification
	sheet/rill	gully	Erosion	Movement	Saiting	Acidification
Susceptibility	High	Moderate	Moderate	Very high	Very low	High
Incidence	Low	Low	Low	Low	Nil	Not available

B. SOIL PROFILE

PROFILE DESCRIPTION

A 1	0-130 mm	Very dark greyish brown (10YR3/2) sandy clay loam, moderate subangular blocky structure, peds 5-10 mm, rough fabric, very weak consistence, less than 2% fine subrounded quartz gravel fragments, pH 6.0. Clear transition to:
A2	130-520 mm	Brown (10YR4/3) sandy clay loam, apedal massive, earthy fabric, moderately weak consistence, a few fine subrounded granitic and quartz gravel fragments, pH 6.0. Abrupt transition to:
B2	520-850 mm	Reddish brown (5YR4/3) light medium clay, many medium distinct red, orange and brown mottles, moderate prismatic structure, peds 10-20 mm, rough fabric, moderately weak consistence, a few fine subrounded granitic and quartz gravel fragments, pH 6.5. Gradual transition to:
ВЗ	850-1500 mm+	Reddish brown (5YR4/3) sandy clay, moderate prismatic structure, peds 10-20 mm, rough fabric, moderately weak consistence, a few fine subrounded granite and quartz gravel fragments, pH 6.5.

CLASSIFICATION

Dr3.21 Factual Key:

Australian Soil Classification: Mottled, Eutrophic, Red Chromosol; thick, non-gravely, loamy/clayey, very

Unified Soil Group:

INTERPRETATION OF LABORATORY ANALYSIS*

Horizon	pH (CaCl₂)	% Gravel	E.C. (salts)	Nutrient Status	Р	K	Al	Organic matter	Dispersibility
A1	5.0	<1	VL	L	D	S	S	Н	L
A2	5.1	2.7	VL	VL	D	S	S	L	Н
B2	5.3	3.5	VL	L	D	S	S	VL	L
В3	5.3	4.0	VL	L	D	S	S	VL	VL

VL: Very Low : Low

Moderate

VH: Very High : High

: Deficient

: Satisfactory

T: Potentially Toxic

A: Not Available

see appendix D for analytical results

* Strongly Acidic

SOIL PROFILE CHARACTERISTICS:

Permeability: Slow (average 10 mm/day, range 2-20 mm/day)

Available Water Capacity: Very high (210 mm H₂O)

Linear Shrinkage (B horizon): Moderate (13%)

C. LAND CAPABILITY ASSESSMENT

Land Use	Class	Major Limiting Feature(s)/Land Use
Agriculture	$C_2 T_5 S_5$	Slope
Effluent Disposal (septic tanks)	5	Slope
Farm Dams	5	Slope, susceptibility to slope failure
Building Foundations slab stumps/footings	5 5	Slope, susceptibility to slope failure Susceptibility to slope failure