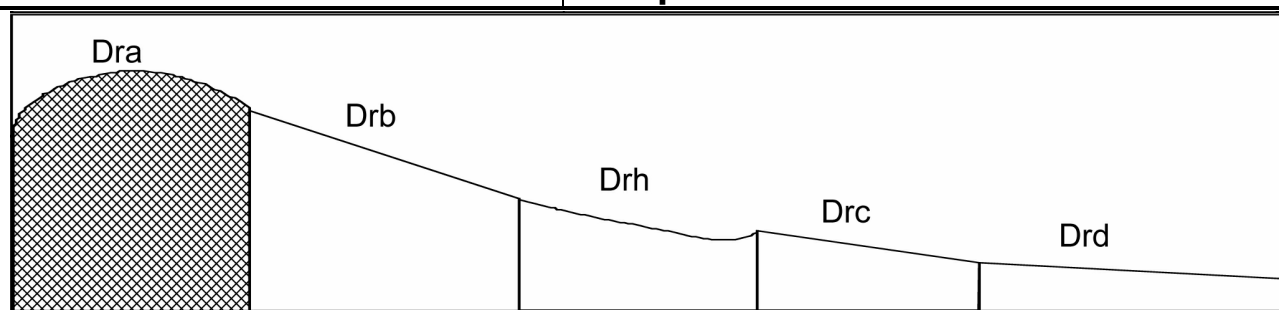


MAP UNIT SYMBOL: Dra

Area: 420 ha

MAP UNIT: Devonian Rhyodacite, steep crest



A. GENERAL DESCRIPTION

Rhyodacite only occurs around Cherokee in the south-western corner of the Shire. The crests in the rhyodacite commonly occur on the steep hills, although some crests do occur on the rolling low hills. Crests which are too small to be represented at the scale used have not been mapped. The soils are generally similar on both the steep and gentle crests, thus they have been categorized as one unit. The soils throughout the rhyodacite are very similar, the only difference being depth of horizons. Red gradational soils with a clay loam topsoil, silty clay loam B1 horizons, and a light to medium clay subsoil predominate. Red duplex soils occur when the silty B1 horizon is absent. Mottling does occur although this is not a common characteristic. Another minor variant is a red duplex or gradational soil with an A2 horizon which is rarely bleached. The soils although not strongly acidic have potentially toxic aluminium levels and are deficient in phosphorus.

SITE CHARACTERISTICS

Parent Material Age: Devonian

Depth to Seas. Watertable: >5.0 m

Parent Material Lithology: Rhyodacite

Flooding Risk: Nil

Landform Pattern: Steep hills/Rolling low hills

Drainage: Well drained

Landform Element: Hillcrest

Rock Outcrop: 0-2%

Slope a) common: 2%

Depth to Hard Rock: >1.5 m

Slope b) range: 0-2%

Present Land Use: Grazing, forested

Potential Recharge to Groundwater: Moderate

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

LAND DEGRADATION

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

B. SOIL PROFILE

PROFILE DESCRIPTION

A10 0-140 mm

Very dark grey (10YR3/1) loam, apedal single grained, earthy fabric, loose consistence, many medium subangular rhyodacite gravel fragments, pH 6.5. Clear transition to:

A11 140-240 mm

Very dark brown (10YR2/2) clay loam, strong subangular blocky structure, peds 5-10 mm, rough fabric, moderately weak consistence, many fine subrounded rhyodacite gravel fragments, pH 6.5. Clear transition to:

- A3** 240-380 mm Dark brown (7.5YR3/3) clay loam, moderate subangular blocky structure, peds 2-5 mm, rough fabric, moderately firm consistence, a few fine subrounded rhyodacite gravel fragments, pH 6.0. Clear transition to:
- B11** 380-720 mm Dark brown (7.5YR3/3) silty clay loam, many medium faint yellow mottles, moderate subangular blocky structure, peds 5-10 mm, rough fabric, moderately weak consistence, a few fine and coarse subrounded rhyodacite gravel fragments, pH 6.0. Gradual transition to:
- B12** 720-990 mm Dark reddish brown (5YR3/4) silty clay loam, moderate subangular blocky structure, peds 5-10 mm, rough fabric, moderately firm consistence, a few medium subrounded rhyodacite gravel fragments, pH 6.0. Clear transition to:
- B2** 990-1400 mm+ Dark reddish brown (5YR3/4) light medium clay with silt, moderate subangular blocky structure, peds 10-20 mm, smooth fabric, moderately firm consistence, less than 2% medium subrounded rhyodacite gravel fragments, pH 6.0.

CLASSIFICATION

Factual Key:	Gn3.11 (major) Dr2.11, Dr2.21, Gn4.14 (minor)
Australian Soil Classification:	Haplic, Eutrophic, Red Dermosol; medium, moderately gravelly, clay loamy/clayey, very deep
Unified Soil Group:	ML

INTERPRETATION OF LABORATORY ANALYSIS*

Horizon	pH (CaCl ₂)	% Gravel	E.C. (salts)	Nutrient Status	P	K	Al	Organic matter	Dispersibility
A10	5.3	23.7	VL	H	D	S	S	H	L
A11	5.1	21.5	VL	M	D	S	T	H	L
A3	5.0	2.0	VL	M	D	S	T	M	L
B11	4.9	6.2	VL	L	D	D	T	L	L
B12	4.9	4.3	VL	L	D	S	T	L	L
B2	4.9	<1	VL	L	D	S	T	L	L

VL: Very Low L: Low M: Moderate H: High VH: Very High D: Deficient S Satisfactory
 T: Potentially Toxic NA: Not Available * see appendix D for analytical results ** Strongly Acidic

SOIL PROFILE CHARACTERISTICS:

Permeability: Rapid (estimate)
Available Water Capacity: Very high (227 mm H₂O)
Linear Shrinkage (B horizon): Moderate (15%)

C. LAND CAPABILITY ASSESSMENT

Land Use	Class	Major Limiting Feature(s)/Land Use
Agriculture	C ₂ T ₁ S ₃	Susceptibility to wind erosion.
Effluent Disposal (septic tanks)	2	
Farm Dams	5	Permeability
Building Foundations slab	2	
stumps/footings	3	Linear shrinkage