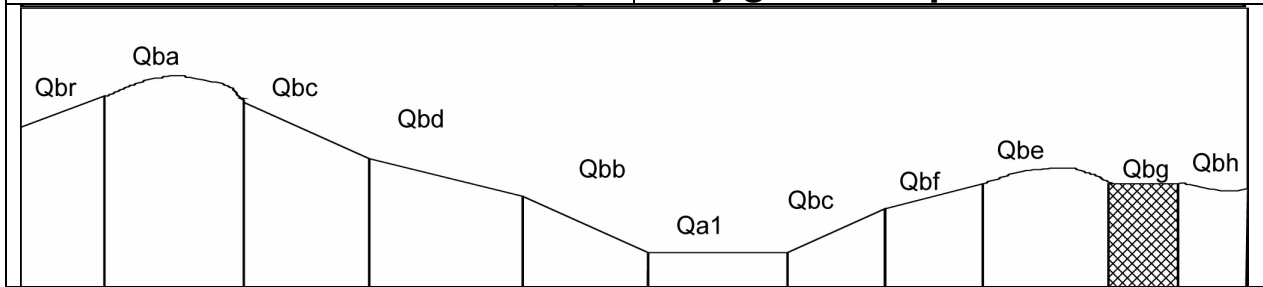


MAP UNIT SYMBOL: Qbg

Area: 161 484 ha

MAP UNIT: Quaternary basalt, very gentle slope



A. GENERAL DESCRIPTION

The very gentle basalt slopes are a common component throughout the central and southern sections of the Shire. Drainage depressions occur throughout this map unit. The common soil type has a silty topsoil with a subsoil increasing in clay content with depth. The A2 horizon, if present, is often sporadically bleached. Ironstone gravel is abundant in the A2 and B1 horizons and varies in depth. The high percentage of gravel fragments reduces the water holding capacity of the soil. A minor variation includes a light clay topsoil which forms a uniform or gradational soil. The topsoil is generally quite deep and has a low nutrient status. The soil is strongly acidic and is potentially toxic in aluminium.

SITE CHARACTERISTICS

Parent Material Age:	Quaternary	Depth to Seas. Watertable:	>2.0 m
Parent Material Lithology:	Basalt	Flooding Risk:	Nil
Landform Pattern:	Lava plain	Drainage:	Moderately well drained
Landform Element:	Plain	Rock Outcrop:	0-2%
Slope a) common:	1.5%	Depth to Hard Rock:	0.85 m - 3.0 m
Slope b) range:	1-3 %	Present Land Use:	Grazing, cropping, residential development
Potential Recharge to Groundwater:	Low		
Major Native Vegetation Species:	River Red Gum, Silver Wattle, Blackwood, Narrow-leaved Peppermint, Manna Gum		

LAND DEGRADATION

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

B. SOIL PROFILE

PROFILE DESCRIPTION

- A11** 0-35m Very dark greyish brown (10YR3/2) silty loam, weak subangular blocky structure, peds 2-5 mm, rough fabric, moderately weak consistence, pH 6.0. Abrupt transition to:
- A12** 35-155 mm Dark greyish brown (10YR4/2) silty loam, moderate subangular block structure, peds 5-10 mm, rough fabric, moderately weak consistence, less than 2% fine subangular basalt fragments, pH 5.0. Clear transition to:
- A21** 155-350 mm Greyish brown (10YR5/2) silt loam, sporadically bleached (10YR7/2) when dry, a few faint medium brown mottles, massive earthy structure, moderately strong consistence, fine subrounded ironstone gravel fragments are common, pH 6.0. Clear transition to:
- A22** 350-610 mm Greyish brown (2.5YR5/2) silt loam, sporadically bleached (10YR7/2) when dry, abundant medium subrounded ironstone gravel fragments, pH 6.5. Abrupt transition to:

- B1** 610-730 mm Light brownish grey (2.5YR6/2) light clay with coarse sand, a few fine faint orange mottles, weak subangular blocky structure, peds 2-5 mm, smooth fabric, moderately firm consistence, abundant medium subangular ironstone gravel fragments, pH 5.5. Abrupt transition to:
- B2** 730-825 mm Brown (10YR5/3) medium clay, a few medium faint orange mottles, weak subangular blocky structure, peds 20-50 mm, smooth fabric, very firm consistence, many medium subangular ironstone gravel fragments, pH 6.0. Abrupt transition to:
- BC** 825 mm+ Partially weathered basalt rock.

CLASSIFICATION

Factual Key:	Dy2.31 (major), Dy3.12, Uf6.12, Gn4
Australian Soil Classification:	Eutrophic, Subnatric, Brown Sodosol; very thick, non-gravelly, loamy/clayey, moderate
Unified Soil Group:	CH

INTERPRETATION OF LABORATORY ANALYSIS*

Horizon	pH (CaCl ₂)	% Gravel	E.C. (salts)	Nutrient Status	P	K	Al	Organic matter	Dispersibility
A11	4.3**	<1	VL	L	S	S	T	H	L
A12	4.2**	1.8	VL	VL	D	S	T	H	L
A21	4.4**	12.2	VL	VL	D	D	T	M	L
A22	4.8	76.4	VL	VL	D	S	S	L	L
B1	4.2**	63.4	VL	M	D	S	T	L	H
B2	4.0**	26.7	VL	H	D	S	T	VL	VH

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:	Slow (average 50 mm/day, range 0-250 mm/day)
Available Water Capacity:	Moderate (100 mm H ₂ O)
Linear Shrinkage (B horizon):	Moderate (16 %)

C. LAND CAPABILITY ASSESSMENT

Land Use	Class	Major Limiting Feature(s)/Land Use
Agriculture	C ₂ T ₁ S ₃	Topsoil condition, depth to hardrock, available water capacity, gravel content, susceptibility to sheet, rill and wind erosion
Effluent Disposal (septic tanks)	3	Drainage, permeability
Farm Dams	3	Linear shrinkage, suitability of subsoil, depth to seasonal watertable, depth to hardrock
Building Foundations slab	5	Stone and gravel content
stumps/footings	5	Stone and gravel content