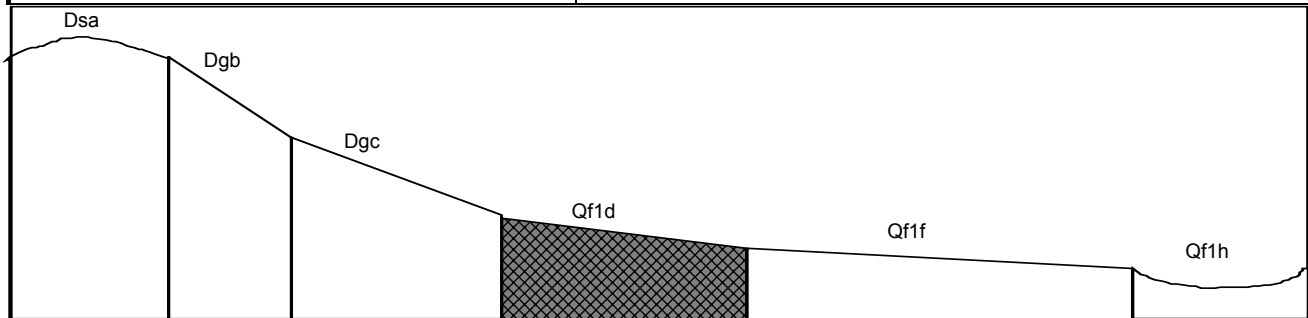


MAP UNIT SYMBOL : Qf1d	MAP UNIT : Quaternary fan (granitic), moderate slope.
Area : 22 ha	



A. GENERAL DESCRIPTION :

These colluvial fans have developed on the south eastern hillslopes of the metamorphosed sedimentary ridge known as the "Three Sisters". They overlie the pre-existing Flowerdale Granite intrusion which has been almost eroded away completely. The soils are very variable containing a mix of metamorphic material and some granitic material. Yellow duplex soils are the most common with very dark greyish-brown, loam fine sandy top soils and brown, medium to heavy clay subsoils. Coarse fragments are abundant in the A horizons and red and orange mottles are abundant in the subsoils. A bleached, hardsetting A2 horizon is also present. This particular unit is highly susceptible to sheet and gully erosion and mass movement. It is recommended that a more detailed survey be carried out on the area if it is to be developed for a more intensive use than grazing.

SITE CHARACTERISTICS :

Parent Material Age:	Devonian	Depth to Seas. Watertable:	>5.0m
Parent Material Lithology:	Granite/Sedimentary	Flooding Risk:	Nil
Landform Pattern:	Rolling low hill	Drainage:	Moderately well drained
Landform Element:	Fan	Rock Outcrop:	0%
Slope a) common:	15%	Depth to Hard Rock:	>1.4m
Slope b) range:	10-20%	Present Land Use:	Grazing
Potential Recharge to Groundwater:	Low		
Major Vegetation Species:	River Red Gum		

LAND DEGRADATION :

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

B. SOIL PROFILE

PROFILE DESCRIPTION

A11	0-80mm	Very dark greyish-brown (10YR3/2) loam fine sandy, moderate granular structure, peds less than 2mm, rough fabric, moderately weak consistence, high organic matter, pH 4.4. Clear transition to:
A12	80-240mm	Dark brown (10YR3/3) loam fine sandy, weak subangular blocky structure, peds 5-10mm, rough fabric, weak consistence, many coarse metamorphic fragments, moderate organic matter. Clear transition to:
A2	240-395mm	Light brown (7.5YR6/4) clay loam, bleached (7.5YR7/2) when dry, weak angular blocky structure, peds 5-10mm, rough fabric, moderately weak consistence, many coarse metamorphic fragments, pH 4.6. Clear transition to:
B21	395-585mm	Yellowish-brown (10YR5/4) heavy clay, many distinct medium sized red and orange mottles, moderate prismatic structure, peds 20-50mm, smooth fabric, moderately weak consistence, a few medium sized metamorphic fragments, pH 4.6. Gradual transition to:

- B22** 585-845mm Brown (10YR5/3) heavy clay, many coarse prominent red and orange mottles, moderate subangular blocky structure, peds 10-20mm, smooth fabric, moderately firm consistence, a few coarse metamorphic fragments, pH 4.7. Gradual transition to:
- B23** 845-1090mm Strong Brown (7.5YR5/6) medium-heavy clay, abundant coarse distinct red and orange mottles, weak structure, angular blocky peds 20-50mm, rough fabric, moderately firm consistence, pH 4.7. Clear transition to:
- B3** 1090-1400+mm Brown (7.5YR5/4) medium clay, many coarse faint red and orange mottles, weak sub angular blocky structure, peds 10-20mm, rough fabric, moderately firm consistence, pH 5.5.

CLASSIFICATION

Factual Key (Northcote):	Dy3.42
Australian Soil Classification:	Bleached-Mottled, Magnesian, Brown Chromosol; thick, gravelly, loamy.
Unified Soil Group:	MH/CH

INTERPRETATION OF LABORATORY ANALYSIS

Horizon	pH (CaCl ₂)	Gravel	E.C. (salts)	Nutrient Status	P	K	Al	Organic matter	Dispersibility
A11	4.4**	4.0	VL	L	S	S	T	H	L
A12	NA	23.1	NA	NA	NA	NA	NA	NA	L
A2	4.6	67.0	VL	VL	D	S	T	M	L
B21	4.6	16.7	VL	M	D	S	T	L	L
B22	4.7	12.4	VL	M	D	S	T	L	L
B23	4.7	8.6	VL	M	D	S	S	L	M
B3	5.5	< 1	VL	M	D	D	S	L	H

VL : Very low L : Low M : Moderate H : High VH : Very High D : Deficient S : Satisfactory
 T : Toxic * see appendix D for analytical results ** : Strongly acidic N.A. : Not Available

SOIL PROFILE CHARACTERISTICS:

Permeability:	Slow (average 28 mm/day, range 14-70 mm/day)
Available Water Capacity:	High (184 mm/day)
Linear shrinkage (B horizon):	Moderate (15%)

C. LAND CAPABILITY ASSESSMENT

Land Use	Class	Major Limiting Feature(s)/Land Use
Agriculture	C ₃ T ₄ S ₄	Moderately steep slope, high gravel/stone/boulder content, highly susceptible to sheet and gully erosion
Effluent Disposal (septic tanks)	4	Low permeability
Farm Dams	4	Moderately steep slope, poor dispersion in subsoil, highly susceptible to slope failure
Secondary Roads	4	Moderately steep slope, highly susceptible to slope failure
Rural Residential	4	Effluent disposal, farm dams, secondary roads
Small Farms	4	Agriculture, effluent disposal, farm dams, secondary roads