



A. GENERAL DESCRIPTION :

This alluvial terrace is associated with some of the creeks in the sedimentary land systems, such as Mia Mia Creek and parts of Sunday Creek as an upper level terrace. It is older alluvium than the floodplain associated with Sunday creek, (Qa1) and is not prone to flooding, therefore it has a more developed soil profile. Dark greyish brown, loam fine sandy top soils overlie a bleached silty loam. The sub soil is usually a highly mottled, light yellowish brown fine sandy clay loam, but in some areas will grade into a light clay. This terrace seems to be easily eroded by the associated creek when stabilising vegetation is lacking. The unit may be grouped with and labelled as Qa1 because it was too small to map.

SITE CHARACTERISTICS :

Parent Material Age:	Quaternary	Depth to Seas. Watertable:	> 2.0m
Parent Material Lithology:	Alluvium	Flooding Risk:	Low
Landform Pattern:	Terrace	Drainage:	Imperfectly drained
Landform Element:	Valley flat	Rock Outcrop:	0%
Slope a) common:	2%	Depth to Hard Rock:	> 1.5m
Slope b) range:	1-3%	Present Land Use:	Grazing
Potential Recharge to Groundwater:	Low		
Major Vegetation Species:	River Red Gum, Blackwood, Wallaby Grass		

LAND DEGRADATION :

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

B. SOIL PROFILE

PROFILE DESCRIPTION

A1	0-185mm	Dark greyish brown (10YR4/2) loam fine sandy, apedal, earthy fabric, moderately weak consistence, pH 3.9. Abrupt transition to:
A2	185- 310mm	Light grey (10YR7/2) silty loam, bleached (10YR8/2) when dry, a few fine faint brown mottles, apedal, earthy fabric, moderately firm consistence, a few subrounded fine gravel fragments, pH 4.3. Clear transition to:
B21	310-635mm	Light yellowish brown (10YR6/4), silty clay loam with fine sand, abundant medium faint orange and grey mottles, moderate subangular blocky structure, peds 20-50mm, rough fabric, firm consistence, many medium sized subangular gravel fragments, pH 4.5. Gradual transition to:
B22	635-1070mm	Brownish yellow (10YR6/6) fine sandy clay loam, abundant coarse distinct orange and grey mottles, moderate prismatic structure, peds 20-50mm, rough fabric, firm consistence, a few medium sized subangular fragments, pH 4.7 . Clear transition to:

B23 1070-1420+mm Dark brown (7.5YR3/4) fine sandy clay loam, abundant coarse distinct orange, pale and grey mottles, weak subangular blocky structure, peds 5-10mm, rough fabric, moderately weak consistence, abundant medium sized subangular gravel fragments, pH 4.8.

CLASSIFICATION

Factual Key (Northcote):	Gn 4.64
Australian Soil Classification:	Bleached-Mottled, Eutrophic, Yellow Dermosol; thick, non-gravelly, loamy/clay loamy, very deep.
Unified Soil Group:	CL-ML

INTERPRETATION OF LABORATORY ANALYSIS

Horizon	pH (CaCl ₂)	%Gravel	E.C. (salts)	Nutrient Status	P	K	Al	Organic matter	Dispersibility
A1	3.9**	< 1	VL	VL	D	D	T	H	L
A2	4.3**	12.6	VL	VL	D	D	T	L	M
B21	4.5**	26.4	VL	VL	D	D	T	VL	M
B22	4.7	21.7	VL	VL	D	D	T	VL	L
B23	4.8	46.3	VL	VL	D	D	S	VL	L

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 14 mm/day, range 4-38 mm/day)
Available Water Capacity:	Very high (234 mmH ₂ O)
Linear Shrinkage (B horizon):	Very low (6%)

C. LAND CAPABILITY ASSESSMENT

Land Use	Class	Major Limiting Feature(s)/Land Use
Agriculture	C ₃ T ₂ S ₃	Moderate condition of the top soil, moderately dispersible top soil, moderate susceptibility to wind erosion
Effluent Disposal (septic tanks)	4	Imperfect drainage, low permeability
Farm Dams	3	Moderate suitability of subsoil, moderately depth to seasonal watertable, moderate permeability, moderately dispersible subsoil
Secondary Roads	4	Imperfect drainage
Rural Residential	4	Effluent disposal, secondary roads
Small Farms	4	Agriculture, effluent disposal, secondary roads