

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0082 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	13/02/96	Elevation:	1124 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6043827 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	615631 Datum: AGD66	Drainage:	Rapidly drained

Geology

ExposureType:	No Data	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	TB	Substrate Material:	Granodiorite

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	21 %	Aspect:	315 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic Magnesic Red Kandosol Medium Non-gravelly Clay-loamy Clayey Deep	Principal Profile Form:	Gn2.11

ASC Confidence:	Great Soil Group:	N/A
All necessary analytical data are available.		

Site Disturbance: No effective disturbance other than grazing by hoofed animals

Vegetation:

Surface Coarse Fragments:

Profile Morphology

O1	0 - 0.01 m	Organic Layer; ;
A1	0.01 - 0.16 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 5YR33, 20-50% , Faint; Clay loam; Strong grade of structure, 5-10 mm, Granular; Rough-ped fabric; Dry; Firm consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 5.5 (Raupach); Abundant, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to -
B21	0.16 - 0.41 m	Red (2.5YR4/6-Moist); Biological mixing, 5YR33, 2-10% , Faint; Light clay; Weak grade of structure, 10-20 mm, Granular; Earthy fabric; Moderately moist; Weak consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Diffuse, Smooth change to -
B22	0.41 - 0.81 m	Red (2.5YR4/6-Moist); ; Clay loam; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Moderately moist; Very weak consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -
B23	0.81 - 1.41 m	Red (2.5YR4/6-Moist); ; Clay loam; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Moderately moist; Very weak consistence; 0-2%, medium gravelly, 6-20mm, angular, dispersed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Abrupt, Smooth change to -

Morphological Notes

A1 Slightly hydrophobic.

B23 Very soft, low bulk density, earthy soil. R horizon encountered hard rock at 1.40m in 3 auger holes may be a large floater.

Observation Notes

Classic "deep red" KA on sqq Fine mica throughout but more evident in layer 3&4. Very gradational soil with v.strong earthy fabric.Prf could well be much deeper if refusal due to a floater.

Site Notes

COMP 118H, 6765-1,BRG81 720M FROM 6728

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				CMol (+)/kg				%
0 - 0.01										
0.01 - 0.16	4.54C		3.82H	1.92	1.47	0.01	2.67J 0K		9.88E	
0.16 - 0.41	4.25C		0.44H	1.11	1.29	0.03	3.34J 0K		6.21E	
0.41 - 0.81	4.14C		0.06H	1.46	0.83	0.03	3.74J 0K		6.11E	
0.81 - 1.41	4.07C		0H	1.21	0.87	0.03	4.15J 0K		6.25E	

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.01												
0.01 - 0.16		4.01B		1025.3B	0.2A		0.99	29.45				
0.16 - 0.41		1.12B		650.2B	0.09A		0.91	19.23				
0.41 - 0.81		0.46B		721.4B	0.05A		1.07	19.55				
0.81 - 1.41		0.32B		598B	0.04A		1.03	21.77				

[illegible]

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Laboratory Analyses Completed for this profile

15_NR	Sum of Ex. cations + Ex. acidity - Not recorded
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_H	Exchangeable H - by compulsive exchange, no pretreatment for soluble salts
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
2A1	Air-dry moisture content
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
6B2	Total organic carbon - high frequency induction furnace, volumetric
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
P10_GRAV	Gravel (%)
P3A1	Bulk density - g/cm3