

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0023 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	13/12/95	Elevation:	1013 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6023762 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	619309 Datum: AGD66	Drainage:	Well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	DGA	Substrate Material:	Adamellite

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Upper-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	33 %	Aspect:	0 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Acidic Mesotrophic Yellow Kandosol Medium Gravelly Clay-loamy Clay-loamy Very deep		Principal Profile Form:	N/A

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

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.11 m	Very dark greyish brown (10YR3/2-Moist); ; Medium sandy clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Very weak consistence; 10-20%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; 0-2%, fine gravelly, 2-6mm, angular, dispersed, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
A12	0.11 - 0.24 m	Brown (7.5YR5/4-Moist); Biological mixing, 10YR42, 20-50% , Faint; Medium sandy clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Very weak consistence; 10-20%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; 2-10%, fine gravelly, 2-6mm, angular, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B21	0.24 - 0.55 m	Reddish yellow (7.5YR6/6-Moist); Biological mixing, 10YR42, 0-2% , Distinct; Medium sandy clay loam; Massive grade of structure; Earthy fabric; Moist; Very weak consistence; 10-20%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; 2-10%, fine gravelly, 2-6mm, angular, dispersed, coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to -
B22	0.55 - 1.3 m	Reddish yellow (7.5YR6/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moist; Very weak consistence; 10-20%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Smooth change to -
C1	1.3 - 2.2 m	Reddish yellow (7.5YR6/6-Moist); ; Clayey sand; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Very weak consistence; 10-20%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; 10-20%, fine gravelly, 2-6mm, angular, dispersed, coarse fragments; Field pH 6 (Raupach); Diffuse, Smooth change to -
C2	2.2 - 3.1 m	Reddish yellow (7.5YR6/6-Moist); ; Clayey sand; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Very weak consistence; 10-20%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; 10-20%, fine gravelly, 2-6mm, angular, dispersed, coarse fragments; Field pH 6 (Raupach);

Morphological Notes

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B22 Coarse fragments coarsen at base.

C1 Relatively unweathered saprolite.

C2 Very similar to layer 5.

Observation Notes

Gravel in pit is quartz pegmatite. Solum(layers 1-4) is transportational over a very deep saprolite weathering in situ? Very sandy C horizon with abundant feldspar.

Site Notes

COMP 25H,9279-2,BRG 296, 700M FROM RD

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity		%
0 - 0.11	4.52C		6.41H	1.49	0.93	0.07	0.84J 0K	9.73E	
0.11 - 0.24	4.47C		2H	0.8	0.67	0.06	0.74J 0K	4.27E	
0.24 - 0.55	4.39C		2.05H	1.77	0.9	0.08	0.74J 0K	5.54E	
0.55 - 1.3	4.07C		0.53H	2.69	0.83	0.11	1.32J 0K	5.48E	
1.3 - 2.2	4.33C		1.21H	3.52	0.21	0.17	0.69J 0K	5.8E	
2.2 - 3.1	4.28C		1.01H	5	0.27	0.2	0.95J 0K	7.43E	

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
	%	C	P	P	N	K		Density	GV		CS	FS
m		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.11		4.98B		171.1B	0.18A		0.80	32.8				
0.11 - 0.24		0.56B		88B	0.03A		1.11	39.38				
0.24 - 0.55		1.45B		120.5B	0.07A		1.16	20.3				
0.55 - 1.3		0.24B		130.9B	0.02A		1.38	29.04				
1.3 - 2.2		0.05B		154.1B	0.01A			19.91				
2.2 - 3.1		0.07B		133.3B	0A			21.33				

[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