

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0097 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	17/04/96	Elevation:	1164 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6043248 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	604298 Datum: AGD66	Drainage:	Rapidly drained

Geology

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

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:	17 %	Aspect:	180 degrees

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Acidic Mesotrophic Red Ferrosol Medium Gravelly Clay-loamy Clayey Very deep		Principal Profile Form:	Gn2.11

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

O1	0 - 0.01 m	Organic Layer; ;
A11	0.01 - 0.09 m	Dark reddish brown (5YR3/2-Moist); ; Clay loam; Strong grade of structure, 2-5 mm, Granular; Rough-ped fabric; Dry; Firm consistence; 10-20%, medium gravelly, 6-20mm, subrounded tabular, dispersed, Basalt, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 6.5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots;
A12	0.09 - 0.18 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 2.5YR34, 20-50% , Distinct; Clay loam; Strong grade of structure, 5-10 mm, Granular; Rough-ped fabric; Moderately moist; Firm consistence; 10-20%, medium gravelly, 6-20mm, subrounded tabular, dispersed, Basalt, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots;
B21	0.18 - 0.51 m	Red (2.5YR4/6-Moist); ; Clay loam; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Moist; Very weak consistence; 10-20%, medium gravelly, 6-20mm, subrounded tabular, dispersed, Basalt, coarse fragments; Few cutans, <10% 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;
B22	0.51 - 1.31 m	Yellowish red (5YR4/6-Moist); ; Light clay; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Moist; Weak consistence; 20-50%, coarse gravelly, 20-60mm, subrounded tabular, dispersed, Basalt, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots;
C	1.31 - 1.91 m	Light brownish grey (10YR6/2-Moist); Substrate influence, 5YR46, 10-20% , Distinct; Light clay; Moist; Very firm consistence; 20-50%, coarse gravelly, 20-60mm, subrounded tabular, dispersed, Basalt, coarse fragments; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots;

Morphological Notes

A11	Very granular hydrophobic with yellow fungi.
A12	Similar to layer 1 but with some B2 incorporated by worms.
B21	Light earthy B2 (not as structured as inprofile 96, but similar). Very silty.

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B22 Slight yellowing.

C Predominantly grey, ground-up weathered basalt. Weathered layer may go deeper than 1.9m.

Observation Notes

Thick scrubby snowy site. Edge of crest and similar to profile 97. Abundant floaters. Silty B2/1.

Site Notes

102H, 220M, BRG65 FROM RD INTERSECTION

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.01										
0.01 - 0.09	5C		23.1H	4.02	1.54	0.18	0.98J 0K		29.81E	
0.09 - 0.18	4.99C		14.84H	3.3	1.38	0.11	0.53J 0K		20.16E	
0.18 - 0.51	4.85C		4.48H	1.92	0.9	0.06	1.31J 0K		8.66E	
0.51 - 1.31	4.37C		2.5H	1.93	0.41	0.12	3.3J 0K		8.26E	
1.31 - 1.91	4.39C		2.18H	1.97	0.16	0.48	2.24J 0K		7.03E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size			Analysis	
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.01												
0.01 - 0.09		11.28B		2976.1B	0.36A		0.62	39.1				
0.09 - 0.18		7.82B		2789.3B	0.28A		0.73	34.16				
0.18 - 0.51		3B		1864.5B	0.08A		0.69	17.32				
0.51 - 1.31		1.79B		2188.2B	0.03A		0.86	24.65				
1.31 - 1.91		0.36B		2573.8B	0A			24.65				

[illegible]

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Laboratory Analyses Completed for this profile

13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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