

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0027 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: P. Ryan	Locality:
Date Desc.: 20/02/96	Elevation: 883 metres
Map Ref.: Sheet No. : 8526 DGPS	Rainfall: No Data
Northing/Long.: 6025505 AMG zone: 55	Runoff: No Data
Easting/Lat.: 613140 Datum: AGD66	Drainage: Rapidly drained

Geology

ExposureType: No Data	Conf. Sub. is Parent. Mat.: Probable
Geol. Ref.: Dga	Substrate Material: Granite

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: 24 %	Aspect: 45 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Acidic Paralithic Bleached-Orthic Tenosol Medium Slightly gravelly Clay-loamy Clayey Deep	Principal Profile Form: Gn2.31
ASC Confidence: All necessary analytical data are available.	Great Soil Group: Yellow podzolic soil

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

Vegetation:

Surface Coarse Fragments: 2-10%, coarse gravelly, 20-60mm, subrounded, ; 2-10%, cobbly, 60-200mm, angular tabular,

Profile Morphology

O1	0 - 0.02 m	Organic Layer; ;
A1	0.02 - 0.12 m	Dark greyish brown (10YR4/2-Moist); Biological mixing, 10YR54, 2-10% , Distinct; Medium sandy clay loam; Weak grade of structure, 5-10 mm, Subangular blocky; Rough-ped fabric; Dry; Very weak consistence; 2-10%, medium gravelly, 6-20mm, subrounded, coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Smooth change to -
A21j	0.12 - 0.27 m	Yellowish brown (10YR5/4-Moist); Light yellowish brown (10YR6/4-Dry); Biological mixing, 10YR42, 10-20% , Distinct; Medium sandy clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; 10-20 mm, Subangular blocky; Rough-ped fabric; Dry; Firm consistence; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual, Irregular change to -
A22e	0.27 - 0.42 m	Brown (7.5YR5/4-Moist); Very pale brown (10YR7/3-Dry); Biological mixing, 10YR43, 2-10% , Faint; Medium sandy clay; Moderate grade of structure, 5-10 mm, Polyhedral; 10-20 mm, Subangular blocky; Rough-ped fabric; Moderately moist; Firm consistence; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Smooth change to -
B21t	0.42 - 0.74 m	Yellowish red (5YR4/6-Moist); Substrate influence, 7.5YR54, 10-20% , Faint; Light medium clay; Weak grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Moderately moist; Firm consistence; 2-10%, medium gravelly, 6-20mm, subrounded, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Irregular change to -
B22	0.74 - 1.27 m	Yellowish red (5YR5/8-Moist); ; Medium sandy clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, subrounded, coarse fragments; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Clear change to -
B3	1.27 - 1.52 m	Strong brown (7.5YR5/6-Moist); ; Sandy loam; Massive grade of structure; Sandy (grains prominent) fabric; Moderately moist; Firm consistence; 20-50%, medium gravelly, 6-20mm, subrounded, coarse fragments; Field pH 4.5 (Raupach); Clear change to -

Morphological Notes

A21j Concentration of large horizontal tree roots.

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A22e As for layer two.

B21t Mottle consists of material similar to layer three. A2 horizon encroaching into B2 horizon.

Observation Notes

Ordovician gravel exists upslope.

Site Notes

COMP 38H,6643-1,87D,100M FR HAIRPIN

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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	Acidity			%
						Cmol (+)/kg				
0 - 0.02										
0.02 - 0.12	5.17C		9.1H	0.85	0.41	0.01	0.11J 0K		10.47E	
0.12 - 0.27	4.82C		2.84H	0.48	0.4	0.01	0.38J 0K		4.11E	
0.27 - 0.42	4.77C		2.08H	1.04	0.61	0	0.23J 0K		3.96E	
0.42 - 0.74	3.92C		0.18H	0.52	0.71	0.03	2.07J 0K		3.51E	
0.74 - 1.27	3.94C		0.42H	0.43	0.31	0	1.85J 0K		3.02E	
1.27 - 1.52	3.87C		0H	0.12	0.27	0	1.91J 0K		2.3E	

Depth m	CaCO3 %	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle		Size FS %	Analysis	
								GV	CS		Silt	Clay
0 - 0.02												
0.02 - 0.12		3.82B		136.6B	0.14A		0.95	22.13				
0.12 - 0.27		1.43B		82B	0.06A		1.24	20.29				
0.27 - 0.42		0.54B		61.9B	0.03A		1.30	25.05				
0.42 - 0.74		0.21B		47.7B	0.01A		1.41	17.59				
0.74 - 1.27		0.82B		71.3B	0.04A		1.39	23.88				
1.27 - 1.52		0.05B		15B	0A			11.64				

[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