Project Name: BAGO-MARAGLE FOREST SOIL SURVEY

Project Code: BGM\_FSS Site ID: 0143 Observation ID: 1

Agency Name: CSIRO Division of Soils (ACT)

**Site Information** 

Desc. By: P. Ryan Locality:

Date Desc.: 23/05/96 Elevation: 573 metres Map Ref.: Sheet No.: 8526 DGPS Rainfall: No Data Northing/Long.: 6061448 AMG zone: 55 Runoff: No Data 614650 Datum: AGD66 Rapidly drained Easting/Lat.: Drainage:

**Geology** 

ExposureType: Soil pit Conf. Sub. is Parent. Mat.: No Data Geol. Ref.: Os Substrate Material: Schist

**Land Form** 

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:Mid-slopeRelief:No DataElem. Type:HillslopeSlope Category:No DataSlope:60 %Aspect:180 degrees

**Surface Soil Condition (dry):** 

**Erosion:** Minor (sheet) Active, Present (mass)

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/AAcidic Orthic Tenosol Thin Moderately gravelly Clay-loamyPrincipal Profile Form:Gn4.11

Clayey Moderately deep

ASC Confidence: Great Soil Group: No suitable group

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 20-50%, fine gravelly, 2-6mm, subangular platy, ; 20-50%, medium gravelly, 6-20mm, subangular

platy, ; 20-50%, fine

gravelly, 2-6mm, angular tabular, Coal

**Profile Morphology** 

O1 0 - 0.02 m Organic Layer; ;

A1 0.02 - 0.08 m Dark brown (7.5YR3/2-Moist); ; Fine sandy clay loam; Weak grade of structure, <2 mm, Granular;

Rough-ped fabric; Moderately moist; Very weak consistence; 20-50%, fine gravelly, 2-6mm, subangular tabular, coarse fragments; Field pH 4 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Clear, Irregular change to -

B21 0.08 - 0.27 m Reddish brown (5YR4/4-Moist); Biological mixing, 7.5YR2.52, 2-10%, Faint; Clay loam; Weak

grade of structure, 2-5 mm, Polyhedral; 10-20 mm, Subangular blocky; Rough-ped fabric; Moderately moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular tabular, coarse fragments; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm)

roots; Common, medium (2-5mm) roots; Gradual, Irregular change to -

B22 0.27 - 0.5 m Dark reddish brown (5YR3/4-Moist); Biological mixing, 2-10%, Distinct; Clay loam; Weak grade

of structure, 2-5 mm, Subangular blocky; Šmooth-ped fabric; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular tabular, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-

2mm) roots; Few, medium (2-5mm) roots; Gradual, Irregular change to -

BC 0.5 - 0.72 m Yellowish red (5YR4/6-Moist); ; Light clay; Massive grade of structure; Earthy fabric; Moist; Weak

consistence; 50-90%, coarse gravelly, 20-60mm, subangular tabular, coarse fragments; Field pH 4 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual, Irregular change

to -

**Morphological Notes** 

A1 Layers 1 to 3 have a colluvial origin.

B21 Large pores/burrows due to blind crickets.

**Observation Notes** 

Very steep slope - loose gravel, soil and litter produce numerous terracettes. Active colluvial slope movement.

**Site Notes** 

COMP 121H 468-1 172D 160M FROM RD BND

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## **Laboratory Test Results:**

<u>=aborator</u>	1001110									
Depth	рН	1:5 EC		hangeable			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca I	Mg	K	Na Cmol (+	Acidity -)/kg			%
0 - 0.02										
0.02 - 0.08	4.06C		4.88H	1.61	0.79	0.08	6.32J 0.56K		14.23E	
0.08 - 0.27	4.29C		0.65H	0.74	0.55	0.05	2.5J 0K		4.49E	
0.27 - 0.5	4.17C		0.12H	0.97	0.55	0.06	3.31J 0K		5E	
0.5 - 0.72	4.06C		0.16H	0.77	0.55	0.04	2.68J 0K		4.2E	
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	l Bulk Density		ticle Size CS FS	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3	٠.	%	om only
0 - 0.02										
0.02 - 0.08		10.17B		505.7B	0.3	3A	0.85	62.6		
0.08 - 0.27		2.45B		373.7B			0.97	53.25		
0.27 - 0.5		2.93B		327.4B		-		39.8		
0.5 - 0.72		0.6B		333.6B	0.0	6A		34.49		
Depth	COLE	0-/	Gravimetric/Volumetric Water Contents 0.05 Bar 0.1 Bar 0.5 Bar 1 Bar 5 Bar 15 Bar						K sat	K unsat
m		Sat.	0.05 Bar	0.1 Bar g/	0.5 Bar g - m3/m	1 Bar 13	5 Bar 15	ваr	mm/h	mm/h

0 - 0.02 0.02 - 0.08 0.08 - 0.27 0.27 - 0.5 0.5 - 0.72

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## **Laboratory Analyses Completed for this profile**

15\_NR Sum of Ex. cations + Ex. acidity - Not recorded

Exchangeable AI - by compulsive exchange, no pretreatment for soluble salts

15E1\_AL 15E1\_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble

Exchangeable H - by compulsive exchange, no pretreatment for soluble salts 15E1\_H

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts 15E1\_K 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

Air-dry moisture content 2A1

pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1 4B2 6B2 Total organic carbon - high frequency induction furnace, volumetric

7A2

Total nitrogen - semimicro Kjeldahl , automated colour Total Phosphorus (ppm) - semimicro kjeldahl, automated colour 9A3

P10\_GRAV Gravel (%)

P3A1 Bulk density - g/cm3