Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0135** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: N.J. McKenzie
Date Desc.: 17/05/96
Map Ref.: Sheet No. : 8526 DGPS
Northing/Long.: 6060602 AMG zone: 55
Easting/Lat.: 613928 Datum: AGD66
Locality:
Elevation: 512 metres
Rainfall: No Data
Runoff: No Data
Drainage: Rapidly drained

Geology

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

Land Form

Rel/Slope Class: No Data
Morph. Type: Mid-slope
Elem. Type: Hillslope
Slope: 37 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 45 degrees

Surface Soil Condition (dry): Firm

Erosion: Partial, Minor (sheet)

Soil Classification

Australian Soil Classification:
Acidic Lithic Bleached-Orthic Tenosol Thin Moderately gravelly Clay-loamy Clayey Moderately deep

Mapping Unit: N/A
Principal Profile Form: Gn4.2

ASC Confidence:
All necessary analytical data are available.

Great Soil Group: N/A

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 10-20%, fine gravelly, 2-6mm, angular platy, ; 10-20%, medium gravelly, 6-20mm, angular platy,

Profile Morphology

O1	0 - 0.01 m	Organic Layer; ;
A1	0.01 - 0.04 m	Dark reddish brown (5YR3/2-Moist); ; Medium sandy clay loam; Moderate grade of structure, 2-5 mm, Granular; Rough-ped fabric; Moderately moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, angular platy, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
A2	0.04 - 0.11 m	Brown (7.5YR5/4-Moist); Substrate influence, 10YR64, 20-50% , Distinct; Silty clay loam; Weak grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, angular platy, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Smooth change to -
B21	0.11 - 0.33 m	Yellowish red (5YR4/5-Moist); ; Light medium clay; Weak grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 50-90%, medium gravelly, 6-20mm, angular platy, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Smooth change to -
B22	0.33 - 0.56 m	Yellowish red (5YR5/6-Moist); ; Light medium clay; Weak grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 50-90%, medium gravelly, 6-20mm, angular platy, dispersed, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Wavy change to -

Morphological Notes

A1	Minimal A1 horizon.
A2	the mottles are sporadic and leached.
B21	Very gravelly but LMC when sieved.
B22	Texture is heavier again and quite sticky.

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Steep exposed slope burnt >20 years ago. Similar to BM133 but the profile is more strongly developed - particularly the redness and clay content of the B2.

Site Notes

COMP 121H 876-1 33D,350M FROM CREEK/RD

Observation Notes

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Project Code: BGM_FSS **Site ID:** 0135 **Observation ID:** 1
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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.01										
0.01 - 0.04	3.68C		3.25H	1.35	1.2	0.06	7.96J 3.82K		17.64E	
0.04 - 0.11	3.79C		0.52H	0.48	0.67	0.06	6.72J 0K		8.44E	
0.11 - 0.33	4.07C		0.06H	0.59	0.72	0.06	2.49J 0K		3.92E	
0.33 - 0.56	4.01C		0.06H	0.55	0.6	0.06	2.5J 0K		3.77E	

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 - 0.04		13.14B		355.7B	0.41A			53.23				
0.04 - 0.11		5.68B		251B	0.16A			42.47				
0.11 - 0.33		1.03B		266.5B	0.09A			52.58				
0.33 - 0.56		0.55B		273.2B	0.07A			52.09				

Depth	COLE	Gravimetric/Volumetric Water Contents						K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m		g/g - m3/m3							mm/h	mm/h
0 - 0.01										
0.01 - 0.04										
0.04 - 0.11										
0.11 - 0.33										
0.33 - 0.56										

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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 (%)