Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0012** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: N.J. McKenzie
Date Desc.: 12/12/95
Map Ref.: Sheet No. : 8526 DGPS
Northing/Long.: 6030223 AMG zone: 55
Easting/Lat.: 619583 Datum: AGD66
Locality:
Elevation: 1035 metres
Rainfall: No Data
Runoff: No Data
Drainage: Well drained

Geology

ExposureType: No Data
Geol. Ref.: Sgg
Conf. Sub. is Parent. Mat.: Probable
Substrate Material: Granodiorite

Land Form

Rel/Slope Class: No Data
Morph. Type: Crest
Elem. Type: Hillcrest
Slope: 10 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 45 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Acidic Mesotrophic Red Kandosol Thick Slightly gravelly Loamy Clay-loamy Very deep
Mapping Unit: N/A
Principal Profile Form: Gn2.11

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

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Dark reddish brown (5YR3/3-Moist); ; Loam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Very weak consistence; 2-10%, fine gravelly, 2-6mm, subangular tabular, dispersed, Coal, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to -
A12	0.1 - 0.32 m	Yellowish red (5YR4/6-Moist); Biological mixing, 5YR42, 20-50% , Distinct; Loam; Moderate grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Moist; Very weak consistence; 0-2%, fine gravelly, 2-6mm, subangular tabular, dispersed, Coal, 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; Few, medium (2-5mm) roots; Many, coarse (>5mm) roots; Gradual, Smooth change to -
B21	0.32 - 0.6 m	Red (2.5YR4/6-Moist); Biological mixing, 5YR42, 2-10% , Distinct; Medium sandy clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Earthy fabric; Moist; Weak consistence; 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; Common, coarse (>5mm) roots; Diffuse, Smooth change to -
B22	0.6 - 1.7 m	Red (2.5YR4/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Diffuse, Smooth change to -
B23	1.7 - 2.6 m	Red (2.5YR4/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moist; Firm consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Clear, Smooth change to -
B24	2.6 - 3.15 m	Brownish yellow (10YR6/6-Moist); Substrate influence, 10YR71, 20-50% , Prominent; Substrate influence, 2.5YR46, 20-50% , Prominent; Clay loam; Moderate grade of structure; Rough-ped fabric; Moist; Firm consistence; Field pH 4.5 (Raupach);

Morphological Notes

B23 Clay skins increase from above layer.

B24 No clay skins on grey mottles. Grey mottling is maximal at top of layer.

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Observation Notes

Site Notes

COMP 21H,246-1 BRG 220DEG 250M FRRD

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0012 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

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 - 0.1	4.1C		1.56H	0.57	0.83	0.04	2.45J 0K		5.45E	
0.1 - 0.32	4.04C		0.11H	0.23	0.58	0.01	1.71J 0K		2.63E	
0.32 - 0.6	4.12C		0.22H	0.31	0.54	0.02	1.24J 0K		2.33E	
0.6 - 1.7	4.21C		0.35H	0.59	0.75	0.03	1.03J 0K		2.75E	
1.7 - 2.6	4.06C		0.5H	0.73	0.75	0.03	2.34J 0K		4.35E	
2.6 - 3.15	3.85C		0H	0.46	0.65	0.05	3.54J 0K		4.7E	

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 - 0.1		3.2B		270.1B	0.16A		1.39	35.19				
0.1 - 0.32		1.23B		200.8B	0.06A		1.64	20.2				
0.32 - 0.6		0.34B		213.9B	0.03A		1.06	31				
0.6 - 1.7		0.17B		206.8B	0.02A		1.58	40.07				
1.7 - 2.6		0.19B		216.8B	0.02A		1.27	28.65				
2.6 - 3.15		0.12B		117.8B	0.02A			33.94				

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 - 0.1										
0.1 - 0.32										
0.32 - 0.6										
0.6 - 1.7										
1.7 - 2.6										
2.6 - 3.15										

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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