

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0120 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	13/05/96	Elevation:	1207 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6052864 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	607295 Datum: AGD66	Drainage:	Well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	Sgg	Substrate Material:	Granodiorite

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Simple-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	15 %	Aspect:	0 degrees

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic Dystrophic Brown Kandosol Medium Slightly gravelly Clay-loamy Clay-loamy Very deep	Principal Profile Form:	Gn2.41
ASC Confidence:	Great Soil Group:	Brown earth
All necessary analytical data are available.		

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

O1	0 - 0.02 m	Organic Layer; ;
A1	0.02 - 0.15 m	Dark brown (7.5YR3/2-Moist); Biological mixing, 10YR44, 2-10% , Faint; Fine sandy clay loam; Weak grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, subangular tabular, Coal, coarse fragments; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Wavy change to -
B21	0.15 - 0.37 m	Strong brown (7.5YR4/6-Moist); Biological mixing, 10YR32, 2-10% , Distinct; Fine sandy clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Irregular change to -
B22	0.37 - 0.58 m	Dark yellowish brown (10YR4/6-Moist); Biological mixing, 10YR43, 2-10% , Faint; Fine sandy loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Irregular change to -
B31	0.58 - 0.73 m	Brown (10YR4/3-Moist); Biological mixing, 10YR42, 20-50% , Distinct; Fine sandy clay loam; Massive grade of structure; Earthy fabric; Moist; Very weak consistence; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Many, coarse (>5mm) roots; Gradual, Irregular change to -
B32	0.73 - 1.17 m	Light yellowish brown (10YR6/4-Moist); Biological mixing, 2.5Y52, 2-10% , Distinct; Fine sandy clay loam; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Very weak consistence; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear change to -
B33	1.17 - 1.72 m	Light yellowish brown (2.5Y6/4-Moist); ; Clayey sand; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Very weak consistence; Field pH 6 (Raupach); Diffuse change to -
C	1.72 - 2.42 m	Pale yellow (2.5Y7/4-Moist); ; Clayey sand; Massive grade of structure; Sandy (grains prominent) fabric; Moderately moist; Very weak consistence; Field pH 6.5 (Raupach);

Morphological Notes

B31 High OM content due to old infilled root channel. Also concentration of large roots in this layer.

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Observation Notes

Site below tors. Profile is deep but poorly weathered.

Site Notes

COMP 35H,14701-1,210D 200M FR Y INTSN

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol	(+)/kg			%
0 - 0.02										
0.02 - 0.15	4.05C		0.93H	0.29	0.38	0.06	4.37J 0K		6.03E	
0.15 - 0.37	4.28C		0.15H	0.12	0.2	0.03	1.02J 0K		1.53E	
0.37 - 0.58	4.36C		0.45H	0.32	0.26	0.04	0.7J 0K		1.78E	
0.58 - 0.73	4.35C		0.57H	0.29	0.38	0.04	1.46J 0K		2.73E	
0.73 - 1.17	4.25C		0.13H	0.15	0.38	0.03	0.7J 0K		1.38E	
1.17 - 1.72	4.23C		0.12H	0.09	0.22	0.03	0.54J 0K		1.01E	
1.72 - 2.42	4.4C		0.04H	0.06	0.11	0.04	0.43J 0K		0.68E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis	
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS	Silt Clay
0 - 0.02											
0.02 - 0.15		5.8B		553.9B	0.22A		1.07	3.73			
0.15 - 0.37		1.15B		358.4B	0.07A		1.25	5.29			
0.37 - 0.58		0.62B		359.5B	0.04A		1.28	5.68			
0.58 - 0.73		1.24B		693.5B	0.05A		1.57	5.37			
0.73 - 1.17		0.29B		875.4B	0.02A			2.95			
1.17 - 1.72		0.1B		607.1B	0.01A			3.66			
1.72 - 2.42		0.11B		515.1B	0.01A			2.99			

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 - 0.02										
0.02 - 0.15										
0.15 - 0.37										
0.37 - 0.58										
0.58 - 0.73										
0.73 - 1.17										
1.17 - 1.72										
1.72 - 2.42										

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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