

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0114 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	25/04/96	Elevation:	1156 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6057056 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	608235 Datum: AGD66	Drainage:	Rapidly drained

Geology

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

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Upper-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	25 %	Aspect:	270 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic Dystrophic Red Kandosol Medium Non-gravelly Silty Clayey Deep	Principal Profile Form:	Gn2.11

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

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

O1	0 - 0.01 m	Organic Layer; ;
A1	0.01 - 0.12 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 5YR44, 20-50% , Faint; Silty clay loam; Moderate grade of structure, 10-20 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Firm consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B1	0.12 - 0.26 m	Reddish brown (5YR4/4-Moist); Biological mixing, 5YR32, 10-20% , Distinct; Light clay; Moderate grade of structure, 20-50 mm, Polyhedral; 10-20 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B21	0.26 - 0.54 m	Yellowish red (5YR4/6-Moist); Biological mixing, 5YR42, 2-10% , Distinct; Silty clay loam; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Moderately moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subangular, dispersed, Granodiorite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to -
B22	0.54 - 1.16 m	Yellowish red (5YR4/6-Moist); ; Silty clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Earthy fabric; Moderately moist; Weak consistence; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, Granodiorite, 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; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to -
C	1.16 - 1.41 m	Strong brown (7.5YR4/6-Moist); Substrate influence, 5YR44, 20-50% , Faint; Medium sandy clay loam; Massive grade of structure; Moderately moist; Very weak consistence; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, Granodiorite, coarse fragments; Field pH 6 (Raupach);

Morphological Notes

A1	Slightly more dense than usable but very pedal and many worms (and a funnel web)
B1	Transitional to B2 with many worm casts.texture is heaviest in this layer but redness increases in layer 3.

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B21 Typical weakly structured clay loam B21.

B22 Large granodiorite -cobbles- mica is evident and obvious.
C C horizon with large cobbles, depth of 1.4m is probably due to a floater.

Observation Notes

Youngish soil without deep red of old surface sites. Abundant rock from 0.4m down. Site may be on and old snig track - site is relatively open.

Site Notes

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.01										
0.01 - 0.12	4.79C		11.42H	2.57	1.17	0.13	1.21J OK		16.5E	
0.12 - 0.26	4.55C		4.4H	1.71	0.99	0.07	1.82J OK		8.99E	
0.26 - 0.54	4.06C		0.72H	0.59	0.57	0.06	4.08J OK		6.02E	
0.54 - 1.16	4.04C		0.25H	0.57	0.39	0.09	3.43J OK		4.72E	
1.16 - 1.41	4.26C		0.43H	0.49	0.12	0.11	0.89J OK		2.03E	

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.01												
0.01 - 0.12		6.12B		733.5B	0.29A		0.68	37.1				
0.12 - 0.26		2.48B		492.5B	0.14A		0.82	36.43				
0.26 - 0.54		1.12B		328.3B	0.07A		0.80	27.57				
0.54 - 1.16		0.55B		255.7B	0.04A		1.13	25.17				
1.16 - 1.41		0.21B		193.1B	0.02A			12.2				

[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