

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0046 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	11/03/96	Elevation:	1224 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6038390 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	615878 Datum: AGD66	Drainage:	Rapidly 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:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	13 %	Aspect:	0 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Acidic Magnesic Red Kandosol Thick Gravelly Clay-loamy Clay-loamy Deep		Principal Profile Form:	Um6.

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 - 0.03 m	Organic Layer; ;
A11	0.03 - 0.13 m	Dark reddish brown (5YR3/3-Moist); Biological mixing, 5YR44, 20-50% , Distinct; Clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Dry; Firm consistence; 0-2%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; 10-20%, stony, 200-600mm, subrounded, dispersed, Granodiorite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Smooth change to -
A12	0.13 - 0.38 m	Dark reddish brown (5YR3/4-Moist); Biological mixing, 5YR33, 20-50% , Distinct; Clay loam; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Dry; Weak consistence; 0-2%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; 10-20%, stony, 200-600mm, subrounded, dispersed, Granodiorite, coarse fragments; Common cutans, 10-50% 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 -
B2	0.38 - 0.68 m	Red (2.5YR4/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 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; Abrupt, Irregular change to -
C	0.68 - 1.43 m	Red (2.5YR4/6-Moist); ; Medium sandy clay loam; Massive grade of structure; Moderately moist; Very weak consistence; Field pH 5 (Raupach);

Morphological Notes

A11	Strongly hydrophobic.
A12	Large dark worm casts from A1 horizon - this could almost be an A3 or B1.
B2	Massive.
C	Saprolite - strongly weathered granodiorite.

Observation Notes

A surprisingly shallow profile - strongly erosional site with v.dry north aspect. Large CFs. Local rise with outcropping rocks.

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0046 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Notes

COMP 117H,11242-1,B 103,360M FR RD/CK

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS Site ID: 0046 Observation ID: 1
Agency Name: CSIRO Division of Soils (ACT)

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 - 0.03										
0.03 - 0.13	4C		1.61H	0.53	0.51	0.01	4.75J 0K		7.41E	
0.13 - 0.38	4.11C		0.1H	0.57	0.62	0	3.41J 0K		4.71E	
0.38 - 0.68	4.06C		0H	0.34	0.49	0	2.64J 0K		3.47E	
0.68 - 1.43	4.12C		0H	0.21	0.35	0	1.23J 0K		1.79E	

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 - 0.03												
0.03 - 0.13		5.41B		339.6B	0.16A		0.95	36.73				
0.13 - 0.38		1.69B		384.3B	0.07A		1.14	25.4				
0.38 - 0.68		0.42B		276B	0.03A		1.24	18.93				
0.68 - 1.43		0.1B		152.4B	0.01A		1.71	20.84				

[illegible]

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0046 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

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