

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0063 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	12/01/96	Elevation:	1124 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6044357 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	614641 Datum: AGD66	Drainage:	No Data

Geology

ExposureType:	No Data	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	Tb?	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:	%	Aspect:	No Data

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic Eutrophic Red Kandosol Medium Moderately gravelly Clay-loamy Clayey Very deep	Principal Profile Form:	Um6.

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

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 20-50%, cobbly, 60-200mm, angular tabular, Granodiorite

Profile Morphology

A11	0 - 0.11 m	Dark reddish brown (5YR3/3-Moist); ; Medium sandy clay loam; Moderate grade of structure, 10-20 mm, Subangular blocky; 5-10 mm, Granular; Rough-ped fabric; Moist; Very weak consistence; 20-50%, cobbly, 60-200mm, angular tabular, stratified, Granodiorite, coarse fragments; 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; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B21	0.11 - 0.27 m	Dark red (2.5YR3/5-Moist); Biological mixing, 2.5YR32, 10-20% , Faint; Medium sandy clay loam; Weak grade of structure, 20-50 mm, Subangular blocky; 5-10 mm, Granular; Rough-ped fabric; Moist; Very weak consistence; 20-50%, cobbly, 60-200mm, angular tabular, stratified, Granodiorite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (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 -
2B21	0.27 - 0.6 m	Yellowish red (5YR4/6-Moist); Biological mixing, 5YR44, 2-10% , Distinct; Light clay; Weak grade of structure, 20-50 mm, Subangular blocky; 5-10 mm, Granular; Rough-ped fabric; Moist; Very weak consistence; 2-10%, cobbly, 60-200mm, subrounded tabular, stratified, 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; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -
2B22	0.6 - 1.6 m	Strong brown (7.5YR4/5-Moist); ; Light clay; Weak grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 2-10%, cobbly, 60-200mm, subrounded tabular, stratified, 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; Diffuse, Smooth change to -
2B31	1.6 - 2.05 m	Strong brown (7.5YR4/6-Moist); Substrate influence, 10YR56, 20-50% , Faint; Substrate influence, 7.5YR56, 20-50% , Faint; Clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5 (Raupach); Gradual, Smooth change to -
2B32c	2.05 - 2.6 m	Brownish yellow (10YR6/6-Moist); Substrate influence, 10YR76, 20-50% , Distinct; Clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Earthy fabric; Moderately moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subrounded, dispersed, Granodiorite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Clear, Smooth change to -

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3Bs 2.6 - 3 m Very pale brown (10YR8/3-Moist); Substrate influence, 5YR58, 20-50% , Prominent; Substrate influence, 2.5YR32, 20-50% , Prominent; Weak grade of structure, 20-50 mm, Polyhedral; Earthy fabric; Moderately moist; Weak consistence; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Soft segregations, weak, segregations;Field pH 5 (Raupach);

Morphological Notes

A11 Fe accumulation from above granodiorite /aplite? Very weathered and mica present.

3Bs Abundant Tb and charcoal (not in CFs). Light texture.

Observation Notes

Site Notes

COMP 118H,6449-1,BRG 87D,180M FR6420-1

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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 - 0.11	4.83C		8.74H	1.58	0.99	0.11	1.76J 0K		13.17E	
0.11 - 0.27	5.04C		7.18H	2.84	1.01	0.12	0.48J 0K		11.62E	
0.27 - 0.6	5C		9.12H	5.4	1.25	0.1	0.22J 0K		16.09E	
0.6 - 1.6	4.2C		3.96H	4.83	0.9	0.13	4.79J 0K		14.62E	
1.6 - 2.05	4.01C		3.38H	6.92	0.68	0.17	10.29J 0K		21.44E	
2.05 - 2.6	4.01C		8.16H	14.76	0.42	0.17	12.57J 0K		36.07E	
2.6 - 3	4.06C		6.82H	11.38	0.18	0.13	6.92J 0K		25.42E	

Depth m	CaCO3	Organic	Avail.	Total	Total	Total	Bulk Density Mg/m3	Particle		Size FS %	Analysis	
	%	C %	P mg/kg	P %	N %	K %		GV	CS		Silt	Clay
0 - 0.11		7.68B		2500.1B	0.28A		0.63	28.33				
0.11 - 0.27		2.81B		2246.2B	0.11A		0.80	26.98				
0.27 - 0.6		1.2B		1910.7B	0.04A		0.97	38.65				
0.6 - 1.6		0.35B		1467.5B	0A		0.97	41.13				
1.6 - 2.05		0.22B		2034.4B	0A			39.78				
2.05 - 2.6		0.15B		1548.2B	0A			39.32				
2.6 - 3		0.09B		1596.2B	0A			38.68				

[illegible]

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Laboratory Analyses Completed for this profile

13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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