

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0146 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	11/03/97	Elevation:	1207 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6051270 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	608747 Datum: AGD66	Drainage:	Well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	Tb	Substrate Material:	Basalt

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:	12 %	Aspect:	0 degrees

Surface Soil Condition (dry): Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic Dystrophic Red Ferrosol Medium Gravelly Clay-loamy Silty Moderately deep	Principal Profile Form:	Uf6.12
ASC Confidence: All necessary analytical data are available.	Great Soil Group:	Chocolate soil

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

O1	0 - 0.03 m	Organic Layer; ;
A1	0.03 - 0.19 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 5YR33, 10-20% , Faint; Silty clay loam; Strong grade of structure, 5-10 mm, Polyhedral; 2-5 mm, Polyhedral; Rough-ped fabric; Dry; Firm consistence; 10-20%, coarse gravelly, 20-60mm, rounded tabular, Basalt, coarse fragments; Field pH 5 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Smooth change to -
B21	0.19 - 0.4 m	Dark red (2.5YR3/6-Moist); Biological mixing, 5YR34, 10-20% , Faint; Silty clay; Moderate grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Dry; Weak consistence; 10-20%, coarse gravelly, 20-60mm, rounded tabular, Basalt, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to -
B22	0.4 - 0.67 m	Yellowish red (5YR4/6-Moist); ; Silty clay; Moderate grade of structure, 5-10 mm, Polyhedral; 10-20 mm, Subangular blocky; Rough-ped fabric; Dry; Weak consistence; 2-10%, coarse gravelly, 20-60mm, rounded tabular, Basalt, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Sharp, Irregular change to -
BC	0.67 - 0.78 m	Yellowish red (5YR4/6-Moist); ; Silty clay loam; Moderate grade of structure, 5-10 mm, Angular blocky; 5-10 mm, Polyhedral; Rough-ped fabric; Dry; Weak consistence; 50-90%, cobbly, 60-200mm, subrounded tabular, Basalt, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4 (Raupach);

Morphological Notes

A1	Dense mat of rhizomes and roots.
BC	Increase in large boulders - forms pavement. Layer could continue to some depth unless a jackhammer and TNT were used.

Observation Notes

Northern edge of basalt flow east of prod21 along ridge east of White Horse Creek.

Site Notes

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BASALT FLOW EAST OF PROD21(PGP11)

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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 - 0.03										
0.03 - 0.19	4.74C		13.03H	3.13	1.32	0.01	3.41J 0K		20.91E	
0.19 - 0.4	4.33C		1.69H	1.6	0.58	0	4.35J 0K		8.21E	
0.4 - 0.67	4.19C		0.78H	1.39	0.5	0.02	4.88J 0K		7.57E	
0.67 - 0.78	4.26C		1.29H	2.11	0.16	0.07	3.78J 0K		7.41E	

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 - 0.19		7.99B		2593.8B	0.35A		0.79	39.49				
0.19 - 0.4		2.02B		1778.7B	0.12A		0.94	9.88				
0.4 - 0.67		1.2B		2295.8B	0.08A		0.95	5.14				
0.67 - 0.78		0.65B		863.9B	0.05A			5.86				

[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