Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0154** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: P. Ryan
Date Desc.: 08/04/97
Map Ref.: Sheet No. : 8526 DGPS
Northing/Long.: 6049615 AMG zone: 55
Easting/Lat.: 605163 Datum: AGD66
Locality:
Elevation: 1183 metres
Rainfall: No Data
Runoff: No Data
Drainage: Poorly drained

Geology

ExposureType: Undisturbed soil core
Geol. Ref.: Sgg
Conf. Sub. is Parent. Mat.: Probable
Substrate Material: Granodiorite

Land Form

Rel/Slope Class: No Data
Morph. Type: Crest
Elem. Type: Hillcrest
Slope: 1 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 0 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Humose-Acidic Tenosolic Redoxic Hydrosol Medium Non-gravelly Silty Silty Deep

ASC Confidence:
All necessary analytical data are available.

Mapping Unit: N/A
Principal Profile Form: Gn2.24
Great Soil Group: Wiesenboden

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

O1	0 - 0.04 m	Organic Layer; ;
A11	0.04 - 0.21 m	Black (10YR2/1-Moist); ; Loam (Sapric); Strong grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Angular blocky; Rough-ped fabric; Moderately moist; Weak consistence; Field pH 4.5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual change to -
A12	0.21 - 0.33 m	Very dark greyish brown (10YR3/2-Moist); ; Sandy loam (Sapric); Moderate grade of structure, 2-5 mm, Polyhedral; <2 mm, Granular; Rough-ped fabric; Moist; Weak consistence; Field pH 4.5 (Raupach); Many, very fine (0-1mm) roots; Clear change to -
A21	0.33 - 0.47 m	Dark greyish brown (2.5Y4/3-Moist); ; Silty clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; Few cutans, <10% of ped faces or walls coated; Field pH 4 (Raupach); Few, very fine (0-1mm) roots; Gradual change to -
A22	0.47 - 0.71 m	Light olive brown (2.5Y5/4-Moist); ; Silty clay; Moderate grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Wet; Firm consistence; Few cutans, <10% of ped faces or walls coated; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Abrupt change to -
B2	0.71 - 1.04 m	Yellowish brown (10YR5/6-Moist); Substrate influence, 2.5Y64, 20-50% , Faint; Silty clay loam; Massive grade of structure; Earthy fabric; Wet; Weak consistence; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Diffuse change to -
C1	1.04 - 1.49 m	Light grey (2.5Y7/1-Moist); Substrate influence, 2.5Y56, 10-20% , Faint; Coarse sandy loam; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Firm consistence; Field pH 4.5 (Raupach); Diffuse change to -
C1	1.49 - 2.84 m	White (2.5Y8/1-Moist); ; Loamy coarse sand; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Weak consistence; Field pH 5 (Raupach);

Morphological Notes

A11	Organic horizon / peat
A22	Pale A2 horizon with silt and clay content.
B2	Abrupt change to mottled clay. Muscovite mica increases and texture is granodiorite based.
C1	Weathering granodiorite with some mottles.

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C1 Weathering granodiorite.

Observation Notes

Open grassy flat/frost hollow. Adjacent to brumby wallow.

Site Notes

BULONGRA RD, 300M E OF TRIANGLE BEND

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.04										
0.04 - 0.21	4.02C		0.73H	0.25	0.9	0	13.61J 0K		15.49E	
0.21 - 0.33	3.99C		0.32H	0.21	0.45	0	18.38J 0K		19.36E	
0.33 - 0.47	3.93C		0.1H	0.1	0.24	0	9.58J 0K		10.01E	
0.47 - 0.71	3.86C		0.05H	0.09	0.25	0	9.87J 0K		10.27E	
0.71 - 1.04	3.97C		0.03H	0.04	0.09	0	3.22J 0K		3.38E	
1.04 - 1.49	3.98C		0.03H	0.07	0.13	0	1.8J 0K		2.04E	
1.49 - 2.84										

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.04												
0.04 - 0.21		11.24B		1268.8B	0.47A		0.61	4.12				
0.21 - 0.33		4.68B		687B	0.36A		1.13	3.39				
0.33 - 0.47		2.14B		338.5B	0.18A		1.02	21.9				
0.47 - 0.71		0.76B		219.6B	0.09A		1.04	36.93				
0.71 - 1.04		0.21B		257.7B	0.02A		1.11	12.55				
1.04 - 1.49		0.06B		99.4B	0.01A			5.06				
1.49 - 2.84								7.65				

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 - 0.04									
0.04 - 0.21									
0.21 - 0.33									
0.33 - 0.47									
0.47 - 0.71									
0.71 - 1.04									
1.04 - 1.49									
1.49 - 2.84									

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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