Project Name: **BAGO-MARAGLE ESM**
Project Code: **BGM_ESM** **Site ID:** **1008** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: P. Ryan
Date Desc.: 15/12/94
Map Ref.: Sheet No. : 8526 DGPS
Northing/Long.: 6047038 AMG zone: 55
Easting/Lat.: 607318 Datum: AGD66
Locality:
Elevation: 1242 metres
Rainfall: No Data
Runoff: Slow
Drainage: No Data

Geology

ExposureType: Soil pit
Geol. Ref.: SGGH
Conf. Sub. is Parent. Mat.: Probable
Substrate Material: Granodiorite

Land Form

Rel/Slope Class: No Data
Morph. Type: No Data
Elem. Type: Hillslope
Slope: 18 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 270 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Acidic Mesotrophic Brown Kandosol Medium Non-gravelly Loamy Clay-loamy Very deep

Mapping Unit: N/A
Principal Profile Form: Gn2.41

ASC Confidence:
All necessary analytical data are available.

Great Soil Group: Brown earth

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 2-10%, coarse gravelly, 20-60mm, subrounded tabular, Granodiorite; 2-10%, cobbly, 60-200mm, subrounded tabular, Granodiorite

Profile Morphology

O1	0 - 0.02 m	Organic Layer; ;
A1	0.02 - 0.14 m	Dark brown (7.5YR3/2-Moist); Biological mixing, 10-20% , Faint; Loam; Moderate grade of structure, 5-10 mm, Polyhedral; 100-200 mm, Lenticular; Rough-ped fabric; Moderately moist; Weak consistence; Moderately plastic; Slightly sticky; Field pH 5.5 (pH meter); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Wavy change to -
B1	0.14 - 0.33 m	Dark brown (7.5YR3/3-Moist); Biological mixing, 10-20% , Faint; Clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; 100-200 mm, Lenticular; Rough-ped fabric; Moderately moist; Weak consistence; Slightly plastic; Slightly sticky; Field pH 5.5 (pH meter); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual, Smooth change to -
B21	0.33 - 0.57 m	Dark brown (7.5YR3/4-Moist); Biological mixing, 2-10% , Distinct; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; Moderately plastic; Slightly sticky; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -
B22	0.57 - 1.17 m	Strong brown (7.5YR4/6-Moist); Biological mixing, 2-10% , Distinct; Coarse sandy clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; Moderately plastic; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (pH meter); Few, very fine (0-1mm) roots;
B3	1.17 - 1.32 m	Yellowish brown (10YR5/6-Moist); ; Coarse sandy loam; Slightly plastic; Slightly sticky; Field pH 5 (pH meter);
C	1.32 - 2.27 m	Light yellowish brown (2.5Y6/4-Moist); ; Clayey sand; Field pH 5.5 (pH meter);

Morphological Notes

B22	Common muscovite mica in sand fraction.
B3	Same as 4.
C	Same as 4.

Observation Notes

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Northern midslope edge of trial. Vigourous and numerous regrowth ash.

Site Notes

VI/1.13 ALPINE ASH CROWTH PLOT

Project Name: BAGO-MARAGLE ESM
Project Code: BGM_ESM **Site ID:** 1008 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0.02 - 0.1	4.44C		7.9H	2.7	1.19	0.15	2.87J		14.81E	
	5.23A						0K			
0.17 - 0.27	4.28C		1H	0.43	0.55	0.15	2.15J		4.27E	
	5.13A						0K			
0.32 - 0.4	4.33C		0.85H	0.65	0.65	0.09	1.23J		3.47E	
	5.09A						0K			
0.72 - 0.82	4.01C		0.4H	0.46	0.47	0.09	1.18J		2.61E	
	4.97A						0K			
1.62 - 1.72	4.55C		0.06H	0.05	0.18	0.08	0.2J		0.58E	
	5.14A						0K			

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			%		
0.02 - 0.1		9.62B		868.3B	0.36A		0.73	4.53				
0.17 - 0.27		3.21B		618.4B	0.14A		1.10	3.5				
0.32 - 0.4		1.97B		458.4B	0.08A		1.30	2.61				
0.72 - 0.82		0.28B		454.4B	0.02A		1.57	4.06				
1.62 - 1.72		0.12B		477.5B	0.01A			3.83				

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
0.02 - 0.1										
0.17 - 0.27										
0.32 - 0.4										
0.72 - 0.82										
1.62 - 1.72										

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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
4A1	pH of 1:5 soil/water suspension
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