

**Project Name:** BAGO-MARAGLE ESM  
**Project Code:** BGM\_ESM      **Site ID:** 1010      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

#### Site Information

<b>Desc. By:</b>	P. Ryan	<b>Locality:</b>	
<b>Date Desc.:</b>	16/12/94	<b>Elevation:</b>	1057 metres
<b>Map Ref.:</b>	Sheet No. : 8526 DGPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6056417 AMG zone: 55	<b>Runoff:</b>	Very slow
<b>Easting/Lat.:</b>	609259 Datum: AGD66	<b>Drainage:</b>	Moderately well drained

#### Geology

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	Probable
<b>Geol. Ref.:</b>	TB	<b>Substrate Material:</b>	Basalt

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Upper-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	5 %	<b>Aspect:</b>	315 degrees

**Surface Soil Condition (dry):** Loose

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Acidic Dystrophic Red Dermosol Medium Slightly gravelly Clay-loamy Clayey Deep	<b>Principal Profile Form:</b>	Gn3.11
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Chocolate soil

All necessary analytical data are available.

**Site Disturbance:** No effective disturbance. Natural

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

O1	0 - 0.03 m	Organic Layer; ;
A11	0.03 - 0.09 m	Dark reddish brown (5YR3/2-Moist); ; Loam; Moderate grade of structure, <2 mm, Granular; Rough-ped fabric; Dry; Loose consistence; Non-plastic; Non-sticky; Field pH 4 (pH meter); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Abrupt, Wavy change to -
A12	0.09 - 0.18 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 2-10% , Faint; Clay loam; Strong grade of structure, 5-10 mm, Polyhedral; 100-200 mm, Lenticular; Rough-ped fabric; Moderately moist; Weak consistence; Moderately plastic; Slightly sticky; 2-10%, medium gravelly, 6-20mm, subrounded tabular, dispersed, Basalt, coarse fragments; Field pH 4.5 (pH meter); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Irregular change to -
B21	0.18 - 0.45 m	Dark reddish brown (5YR3/3-Moist); ; Light clay; Moderate grade of structure, 10-20 mm, Subangular blocky; 100-200 mm, Prismatic; Smooth-ped fabric; Moderately moist; Weak consistence; Moderately plastic; Slightly sticky; 2-10%, medium gravelly, 6-20mm, angular tabular, dispersed, Basalt, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 4.5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Wavy change to -
B22	0.45 - 0.93 m	Dark reddish brown (5YR3/4-Moist); ; Light clay; Weak grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Weak consistence; Moderately plastic; Slightly sticky; 20-50%, medium gravelly, 6-20mm, rounded tabular, stratified, Basalt, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Smooth change to -
B23	0.93 - 1.13 m	Dark reddish brown (5YR3/4-Moist); Substrate influence, 2-10% , Faint; Clay loam; Moderately plastic; Slightly sticky; Field pH 4.5 (pH meter);

#### Morphological Notes

A11	Very hydrophobic.
B22	Concentration of large gravel which decrease in size with depth.
B23	Large gravel concentration has decreased but smaller gravel are more weathered. Auger hit substrate at 1.2 m.

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Pit is on NE corner of trial. Ash planted into mountain gum-peppermint forest type.

**Site Notes**

VI/1.16, ALPINE ASH GROWTH PLOTS

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[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
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