

**Project Name:** BAGO-MARAGLE FOREST SOIL SURVEY  
**Project Code:** BGM\_FSS **Site ID:** 0016 **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>	14/02/96	<b>Elevation:</b>	1257 metres
<b>Map Ref.:</b>	Sheet No. : 8526 DGPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6028105 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	621650 Datum: AGD66	<b>Drainage:</b>	Rapidly drained

#### Geology

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	os	<b>Substrate Material:</b>	Schist

#### 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>	No Data	<b>Slope Category:</b>	No Data
<b>Slope:</b>	29 %	<b>Aspect:</b>	270 degrees

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

**Erosion:** Partial, Minor (sheet)

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Acidic Magnesic Brown Kandosol Medium Gravelly Clay-loamy Clay-loamy Deep	<b>Principal Profile Form:</b>	Gn2.21
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Brown earth

All necessary analytical data are available.

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

#### Vegetation:

**Surface Coarse Fragments:** 10-20%, medium gravelly, 6-20mm, subrounded tabular, Schist; 10-20%, coarse gravelly, 20-60mm, subangular, Schist

#### Profile Morphology

O1	0 - 0.03 m	Organic Layer; ;
A1	0.03 - 0.16 m	Dark brown (7.5YR3/4-Moist); Biological mixing, 10YR33, 2-10% , Faint; Medium sandy clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subrounded, Schist, coarse fragments; Field pH 4.5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Abrupt, Wavy change to -
AB	0.16 - 0.33 m	Brown (7.5YR4/4-Moist); Mechanical, 7.5YR32, 20-50% , Distinct; Biological mixing, 10YR32, 10-20% , Faint; Clay loam, sandy; Moderate grade of structure, 5-10 mm, Polyhedral; 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subrounded tabular, Schist, coarse fragments; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Broken change to -
B2	0.33 - 0.58 m	Strong brown (7.5YR5/6-Moist); Biological mixing, 10YR33, 2-10% , Faint; Medium sandy clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Earthy fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subrounded tabular, Schist, coarse fragments; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Irregular change to -
BC	0.58 - 0.83 m	Yellowish brown (10YR5/8-Moist); Substrate influence, 2.5YR44, 20-50% , Prominent; Sandy loam; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Weak consistence; 20-50%, coarse gravelly, 20-60mm, subrounded tabular, Schist, coarse fragments; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Wavy change to -
C	0.83 - 1.08 m	Reddish brown (2.5YR4/4-Moist); ; Sandy loam; 50-90%, cobbly, 60-200mm, subrounded tabular, Schist, coarse fragments; Field pH 4.5 (Raupach);

#### Morphological Notes

A1	Evidence of mechanical disturbance.
AB	Buried lens of darker organic rich material with abundant charcoal. Evidence of mechanical disturbance
C	Red colouring from weathered iron rich sediments.

#### Observation Notes

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Site is on ridge line with gravelly surface. Recently logged.

**Site Notes**

COMP 23H,3754-1,272D,250M FR RD-CK JN

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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 - 0.16	3.98C		0.25H	0.16	0.17	0.03	3.06J 0K		3.67E	
0.16 - 0.33	3.91C		0.16H	0.14	0.17	0.03	3.93J 0K		4.42E	
0.33 - 0.58	4.02C		0H	0.09	0.13	0.03	1.64J 0K		1.9E	
0.58 - 0.83	4.13C		0H	0.1	0.09	0.02	0.9J 0K		1.12E	
0.83 - 1.08	4.16C		0H	0.09	0.09	0.04	0.69J 0K		0.91E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis	
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS	Silt Clay
0 - 0.03											
0.03 - 0.16		4.14B		177.9B	0.11A		1.02	32.2			
0.16 - 0.33		3.8B		178.1B	0.1A		0.99	26.6			
0.33 - 0.58		0.48B		124.4B	0.06A		1.73	26.78			
0.58 - 0.83		0.12B		126.6B	0.06A			16.11			
0.83 - 1.08		0.07B		139.8B	0.02A			21.07			

[illegible]

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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