

**Project Name:** BAGO-MARAGLE FOREST SOIL SURVEY  
**Project Code:** BGM\_FSS **Site ID:** 0140 **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>	21/05/96	<b>Elevation:</b>	492 metres
<b>Map Ref.:</b>	Sheet No. : 8526 DGPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6059987 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	614148 Datum: AGD66	<b>Drainage:</b>	Well drained

#### Geology

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	Probable
<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>	Lower-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	55 %	<b>Aspect:</b>	180 degrees

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

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

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Acidic Dystrophic Red Kandosol Thin Gravelly Silty Clayey Deep	<b>Principal Profile Form:</b>	Gn4.11
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	No suitable group
All necessary analytical data are available.		

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

#### Vegetation:

**Surface Coarse Fragments:** 2-10%, coarse gravelly, 20-60mm, subangular tabular, ; 2-10%, coarse gravelly, 20-60mm, subangular platy,

#### Profile Morphology

A1	0 - 0.06 m	Dark brown (7.5YR3/2-Moist); ; Silty clay loam; Weak grade of structure, <2 mm, Granular; Rough-ped fabric; Moist; Very weak consistence; 10-20%, fine gravelly, 2-6mm, subangular platy, coarse fragments; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Smooth change to -
A3	0.06 - 0.18 m	Dark brown (7.5YR3/3-Moist); Biological mixing, 7.5YR32, 2-10% , Faint; Silty clay loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, subangular platy, coarse fragments; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Wavy change to -
B1	0.18 - 0.29 m	Reddish brown (5YR4/4-Moist); Biological mixing, 7.5YR33, 2-10% , Faint; Silty clay; Weak grade of structure, 5-10 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, subangular platy, coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Gradual, Irregular change to -
B21	0.29 - 0.63 m	Yellowish red (5YR4/6-Moist); ; Light medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, subangular platy, coarse fragments; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual, Irregular change to -
B22	0.63 - 1.45 m	Yellowish red (5YR4/6-Moist); ; Light medium clay; Weak grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moist; Very weak consistence; 20-50%, fine gravelly, 2-6mm, subangular platy, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear change to -

#### Morphological Notes

A1 Layers 1 to 5 are colluvial.

#### Observation Notes

Steep S facing slope above a flatter bench. Soils are deeper and moister than NW slopes.

#### Site Notes

COMP 121H 1156- 1 210M 75D FROM STREAM

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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 - 0.06	4.01C		3.47H	1.34	1.01	0.07	5.75J 0K		11.64E	
0.06 - 0.18	4.15C		0.86H	0.69	0.62	0.07	3.66J 0K		5.9E	
0.18 - 0.29	4.13C		0.3H	0.5	0.52	0.07	2.89J 0K		4.28E	
0.29 - 0.63	4.05C		0.14H	0.45	0.5	0.04	2.88J 0K		4.02E	
0.63 - 1.45	4.01C		0.06H	0.31	0.39	0.03	2.39J 0K		3.18E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Particle CS	Size FS	Analysis Silt	Analysis Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.06		7.48B		590.9B	0.32A		0.80	38.75				
0.06 - 0.18		3.35B		482B	0.17A		0.90	23.58				
0.18 - 0.29		2.03B		391.3B	0.12A		1.05	26.91				
0.29 - 0.63		0.8B		306.7B	0.06A		1.16	9.22				
0.63 - 1.45		0.34B		349.7B	0.05A			28.6				

[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