

**Project Name:** BAGO-MARAGLE FOREST SOIL SURVEY  
**Project Code:** BGM\_FSS **Site ID:** 0026 **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>	15/12/95	<b>Elevation:</b>	847 metres
<b>Map Ref.:</b>	Sheet No. : 8526 DGPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6022857 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	611633 Datum: AGD66	<b>Drainage:</b>	Imperfectly drained

#### Geology

<b>ExposureType:</b>	No Data	<b>Conf. Sub. is Parent. Mat.:</b>	Probable
<b>Geol. Ref.:</b>	Dga	<b>Substrate Material:</b>	Adamellite

#### 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>	8 %	<b>Aspect:</b>	45 degrees

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

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Acidic Bleached-Orthic Tenosol Medium Slightly gravelly	<b>Principal Profile Form:</b>	Uc2.2
Clay-loamy Clay-loamy Moderately deep		

<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	N/A
All necessary analytical data are available.		

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

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

O1	0 - 0.02 m	Organic Layer; ;
A1	0.02 - 0.14 m	Very dark greyish brown (10YR3/2-Moist); ; Fine sandy clay loam; Moderate grade of structure, 2-5 mm, Granular; Rough-ped fabric; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subrounded tabular, Adamellite, coarse fragments; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Abrupt, Smooth change to -
A21j	0.14 - 0.35 m	Brown (10YR5/3-Moist); Light grey (10YR7/2-Dry); Biological mixing, 10YR32, 10-20% , Distinct; Fine sandy clay loam; Weak grade of structure, 5-10 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subrounded tabular, Adamellite, coarse fragments; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Smooth change to -
A22e	0.35 - 0.58 m	Light yellowish brown (2.5Y6/4-Moist); Light grey (10YR7/2-Dry); Substrate influence, 10YR68, 2-10% , Distinct; Substrate influence, 5YR54, 0-2% , Distinct; Fine sandy clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Firm consistence; 10-20%, medium gravelly, 6-20mm, subrounded tabular, Adamellite, coarse fragments; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Nodules, weak, segregations;Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Wavy change to -
B2	0.58 - 0.75 m	Brownish yellow (10YR6/6-Moist); Substrate influence, 2.5Y64, 10-20% , Distinct; Substrate influence, 2.5Y64, 2-10% , Distinct; Fine sandy clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Firm consistence; 10-20%, medium gravelly, 6-20mm, subrounded tabular, Adamellite, coarse fragments; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), Nodules, weak, segregations;Field pH 6 (Raupach); Clear, Broken change to -
BC	0.75 - 0.92 m	Light yellowish brown (10YR6/4-Moist); ; Fine sandy clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 50-90%, coarse gravelly, 20-60mm, subrounded tabular, Adamellite, coarse fragments; Field pH 6 (Raupach);

#### Morphological Notes

A21j	Roots are restricted to the bottom of this layer.
A22e	Lower horizon becomes weakly cemented. Clays are dispersive.

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B2                      Clays are dispersive. A mixture of fine and coarse colluvium.

BC                      Abrupt increase in gravel which also seems to have been transported.

**Observation Notes**

Profile morphology indicates depositional site, but current site is transportational. Possible relict profile.

**Site Notes**

COMP ?,11084-1,305DEG,125M FROM RD-CK

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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 - 0.02										
0.02 - 0.14	4.55C		5.15H	1.06	0.63	0.03	0.43J 0.29K		7.59E	
0.14 - 0.35	4.33C		1.23H	0.39	0.35	0	0.66J 0K		2.63E	
0.35 - 0.58	4.4C		1.12H	0.33	0.37	0.02	0.28J 0K		2.12E	
0.58 - 0.75	4.48C		1.25H	0.35	0.3	0.01	0.19J 0K		2.09E	
0.75 - 0.92	4.55C		1.18H	0.36	0.29	0.02	0.11J 0.05K		2.01E	

Depth m	CaCO3 %	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle		Size FS %	Analysis	
								GV	CS		Silt	Clay
0 - 0.02												
0.02 - 0.14		3.69B		356.4B	0.16A		1.11	34.67				
0.14 - 0.35		1.75B		163B	0.05A		1.27	17.78				
0.35 - 0.58		0.3B		76.2B	0.02A		1.64	39.96				
0.58 - 0.75		0.14B		51.8B	0.01A		1.65	27.32				
0.75 - 0.92		0.14B		53.8B	0.01A			48.08				

[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 (%)
P10_S_0.48	0.48 micron (cumulative %) - Sedigraph
P10_S_1	1 micron (cumulative %) - Sedigraph
P10_S_1000	1000 micron (cumulative %) - Sedigraph
P10_S_125	125 micron (cumulative %) - Sedigraph
P10_S_15.6	15.6 micron (cumulative %) - Sedigraph
P10_S_2	2 micron (cumulative %) - Sedigraph
P10_S_20	20 micron (cumulative %) - Sedigraph
P10_S_2000	2000 micron (cumulative %) - Sedigraph
P10_S_250	250 micron (cumulative %) - Sedigraph
P10_S_3.9	3.9 micron (cumulative %) - Sedigraph
P10_S_31.2	31.2 micron (cumulative %) - Sedigraph
P10_S_500	500 micron (cumulative %) - Sedigraph
P10_S_53	53 micron (cumulative %) - Sedigraph
P10_S_63	63 micron (cumulative %) - Sedigraph
P10_S_7.8	7.8 micron (cumulative %) - Sedigraph
P3A1	Bulk density - g/cm3