Project Name: BAGO-MARAGLE ESM

Project Code: BGM\_ESM Site ID: 1006 Observation ID: 1

Agency Name: CSIRO Division of Soils (ACT)

**Site Information** 

Desc. By: P. Ryan Locality:

Date Desc.: Elevation: 14/12/94 1104 metres Map Ref.: Sheet No.: 8526 DGPS Rainfall: No Data Northing/Long.: 6058559 AMG zone: 55 Runoff: Slow 607582 Datum: AGD66 Easting/Lat.: Well drained Drainage:

**Geology** 

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

**Land Form** 

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:Upper-slopeRelief:No DataElem. Type:HillslopeSlope Category:No DataSlope:8 %Aspect:0 degrees

Surface Soil Condition (dry): Firm

**Erosion:** 

**Soil Classification** 

Australian Soil Classification: Mapping Unit: N/A
Acidic Mesotrophic Red Kandosol Thin Slightly gravelly ClayPrincipal Profile Form: Uf6.21

Ioamy Clayey Very deep

ASC Confidence: Great Soil Group: No suitable group

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

**Vegetation:** 

Α1

**Surface Coarse Fragments:** 

0.01 - 0.08 m

**Profile Morphology** 

O1 0 - 0.01 m Organic Layer; ;

Dark reddish brown (5YR3/2-Moist); Biological mixing, 2-10%, Faint; Clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; >500 mm, Platy; Rough-ped fabric; Dry; Weak consistence; Slightly plastic; Non-sticky; 2-10%, medium gravelly, 6-20mm, angular tabular, dispersed, Coal, coarse fragments; Field pH 6 (pH meter); Many, very fine (0-1mm) roots; Common, fine (1-2mm)

roots; Abrupt, Wavy change to -

A3 0.08 - 0.2 m Dark reddish brown (5YR3/3-Moist); Biological mixing, 2-10%, Faint; Light clay; Strong grade of

structure, 5-10 mm, Polyhedral; 100-200 mm, Lenticular; Rough-ped fabric; Moderately moist; Weak consistence; Moderately plastic; Moderately sticky; 0-2%, fine gravelly, 2-6mm, angular tabular, dispersed, Coal, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 6 (pH meter); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -

B1 0.2 - 0.32 m Dark red (2.5YR3/6-Moist); Biological mixing, 0-2% , Faint; Light clay; Moderate grade of

structure, 10-20 mm, Subangular blocky; 100-200 mm, Lenticular; Smooth-ped fabric; Moderately moist; Weak consistence; Moderately plastic; Moderately sticky; 0-2%, fine gravelly, 2-6mm, angular tabular, dispersed, Coal, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 6 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth

change to -

B21 0.32 - 0.61 m Red (2.5YR4/6-Moist); Biological mixing, 0-2%, Faint; Light clay; Weak grade of structure, 10-20

mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Weak consistence; Moderately plastic; Moderately sticky; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Diffuse, Smooth change to -

B22 0.61 - 1.81 m Red (2.5YR4/6-Moist); Clay loam; Weak grade of structure, 10-20 mm, Subangular blocky;

Smooth-ped fabric; Moderately moist; Weak consistence; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm)

roots;

B23 1.81 - 2.01 m Yellowish red (5YR4/6-Moist); ; Clay loam; Moderately plastic; Moderately sticky; Field pH 5 (pH

meter);

**Morphological Notes** 

B23 Hit rock with auger at 2m. No substrate encountered.

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Western midslope edge of trial.

Site Notes

VI/1.18, ALPINE ASH OFF-SITE SPACING

1006 Observation ID: 1

Project Name: BAGO-MARAGLE ESM
Project Code: BGM\_ESM Site ID: 100
Agency Name: CSIRO Division of Soils (ACT)

## **Laboratory Test Results:**

Laboratory	i cot ite	Juito.								
Depth	pН	1:5 EC		hangeable			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca I	Mg	K	Na Cmol (+	Acidity ·)/kg			%
0.01 - 0.09	4.56C 5.36A		12.32H	2.56	1.28	0.16	1.66J 0K		17.98	E
0.09 - 0.19	4.46C 5.42A		4.56H	2.23	1.01	0.13	1.99J 0K		9.91E	•
0.21 - 0.31	4.45C 5.52A		3.02H	2.34	0.86	0.09	1.07J 0K		7.38E	<u> </u>
0.31 - 0.39	4.42C 5.43A		2.61H	2.77	1.05	0.12	0.89J 0K		7.44E	<u> </u>
0.71 - 0.81	3.98C 5.11A		0.68H	1.94	0.78	0.09	2.25J 0K		5.73E	
1.31 - 1.51	3.79C 4.9A		0.07H	0.11	1.78	0.09	3.55J 0K		5.59E	
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total	l Bulk Density	Pa GV	rticle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%	•
0.01 - 0.09		8.57B		535.6B	3 0.2	.6A	0.74	1.34		
0.09 - 0.19		2.7B		421.3B	0.1	3A	1.10	1.73		
0.21 - 0.31		1.51B		303.6B	0.0	7A	1.23	0.12		
0.31 - 0.39		1.1B		289.9B		6A	1.07	0.06		
0.71 - 0.81		0.39B		216.7B		3A	1.31	0.2		
1.31 - 1.51		0.17B		192.8B				2.54		
Depth	COLE									K unsat
m		Sat.	0.05 Bar	0.1 Bar g/	0.5 Bar /g - m3/m	1 Bar 13	5 Bar 15	Bar	mm/h	mm/h

0.01 - 0.09 0.09 - 0.19 0.21 - 0.31 0.31 - 0.39 0.71 - 0.81 1.31 - 1.51

**BAGO-MARAGLE ESM Project Name:** 

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## **Laboratory Analyses Completed for this profile**

15\_NR Sum of Ex. cations + Ex. acidity - Not recorded

15E1\_AL 15E1\_CA Exchangeable AI - by compulsive exchange, no pretreatment for soluble salts

Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble

Exchangeable H - by compulsive exchange, no pretreatment for soluble salts 15E1\_H

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts 15E1\_K 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

Air-dry moisture content 2A1 pH of 1:5 soil/water suspension 4A1

pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1 4B2

6B2 Total organic carbon - high frequency induction furnace, volumetric

7A2 Total nitrogen - semimicro Kjeldahl , automated colour

Total Phosphorus (ppm) - semimicro kjeldahl, automated colour 9A3

P10\_GRAV Gravel (%)

Bulk density - g/cm3 P3A1