**Project Name: BAGO-MARAGLE ESM** 

Observation ID: 1 **Project Code: BGM ESM** Site ID: 1021

**Agency Name: CSIRO Division of Soils (ACT)** 

**Site Information** 

Locality: Desc. By: P. Ryan

Date Desc.: Elevation: 04/04/95 1191 metres Map Ref.: Sheet No.: 8526 DGPS Rainfall: No Data Northing/Long.: Runoff: 6051086 AMG zone: 55 Slow

Easting/Lat.: 609084 Datum: AGD66 Rapidly drained Drainage:

Geology

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

**Land Form** 

Rel/Slope Class: No Data Pattern Type: No Data Morph. Type: Mid-slope Relief: No Data Elem. Type: Slope Category: Hillslope No Data 20 % Aspect: 90 degrees Slope:

Surface Soil Condition (dry): Loose

**Erosion:** 

**Soil Classification** 

**Australian Soil Classification:** N/A **Mapping Unit:** Acidic Dystrophic Brown Kandosol Medium Non-gravelly Clay-**Principal Profile Form:** Gn2.24

Ioamy Clayey Very deep

**ASC Confidence: Great Soil Group:** Brown earth

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

**Vegetation:** 

Surface Coarse Fragments: 0-2%, cobbly, 60-200mm, subrounded, Granodiorite

**Profile Morphology** 

0 - 0.02 m Organic Layer;;

A11 0.02 - 0.12 m Dark brown (7.5YR3/2-Moist); ; Clay loam, sandy; Moderate grade of structure, 5-10 mm,

Polyhedral; Rough-ped fabric; Dry; Weak consistence; 0-2%, medium gravelly, 6-20mm, subrounded, dispersed, Granodiorite, coarse fragments; Field pH 5.5 (pH meter); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Wavy change to

Very dark greyish brown (10YR3/2-Moist); Biological mixing, 2-10%, Faint; Fine sandy clay A12 0.12 - 0.24 m

loam; Strong grade of structure, 5-10 mm, Polyhedral; 100-200 mm, Lenticular; Rough-ped fabric; Dry; Weak consistence; 0-2%, cobbly, 60-200mm, subrounded, dispersed, Granodiorite, coarse fragments; 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); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Wavy change to -

В1 0.24 - 0.35 m Dark brown (7.5YR3/4-Moist); Biological mixing, 2-10%, Distinct; Fine sandy clay loam; Weak

grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Dry; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint, Field pH 6 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Gradual, Smooth change to -

Strong brown (7.5YR4/6-Moist); Biological mixing, 2-10%, Faint; Medium sandy light clay; B2 0.35 - 0.77 m

Massive grade of structure; Earthy fabric; Dry; Firm consistence; 20-50%, cobbly, 60-200mm, subrounded tabular, stratified, Granodiorite, coarse fragments; Field pH 5.5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse

(>5mm) roots; Diffuse, Smooth change to -

Dark yellowish brown (10YR4/4-Moist); ; Clayey sand; Massive grade of structure; Earthy fabric; Dry; Weak consistence; 20-50%, cobbly, 60-200mm, subrounded tabular, stratified, В3 0.77 - 0.97 m

Granodiorite, coarse fragments; Field pH 5.5 (pH meter); Few, very fine (0-1mm) roots; Few, fine

(1-2mm) roots; Gradual, Wavy change to -

С 0.97 - 2.12 m Greyish brown (2.5Y5/3-Moist); ; Loamy sand; Massive grade of structure; Sandy (grains

prominent) fabric; Moderately moist; Very weak consistence; 20-50%, cobbly, 60-200mm, subrounded tabular, stratified, Granodiorite, coarse fragments; Field pH 6 (pH meter);

**Morphological Notes** 

Large tors present in this layer and those below. Two old root channels are al-so present.

Course fragments within weathering granodiorite are mafic xenoliths.

Project Name: BAGO-MARAGLE ESM
Project Code: BGM\_ESM Site ID: 102
Agency Name: CSIRO Division of Soils (ACT) Observation ID: 1 1021

## **Observation Notes**

PGP centre peg 3 south of pit. Plot is on slope below tor-field. Upslope ash is replaced by mountain gum, snow gum.

## **Site Notes**

PGP22, BAGO S.F., COMPT 34

**BAGO-MARAGLE ESM** 

BGM\_ESM Site ID: 1021
CSIRO Division of Soils (ACT) Observation ID: 1

Project Name: Project Code: Agency Name:

Laboratory Test Results:
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Depth	рН	1:5 EC		hangeable			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca I	Mg K		Na Acidity Cmol (+)/kg				%
0.02 - 0.1	4.62C 5.38A		6.73H	1.17	8.0	0.03	2.07J 0K		10.8	Ē
0.12 - 0.24	4.74C 5.59A		3.13H	0.55	0.45	0.02	1.02J 0K		5.17	Ē
0.32 - 0.4	4.66C 5.68A		1.26H	0.39	0.25	0.01	0.35J 0K		2.27	<b></b>
0.42 - 0.62	4.48C 5.41A		0.04H	0.09	0.07	0.01	0.57J 0K		0.78	Ē
0.77 - 0.97	4.35C 5.34A		0.29H	0.18	0.14	0	0.38J 0K		0.99	
1.52 - 1.82	4.74C 5.35A		0.1H	0.1	0.17	0.02	0.06J 0.14K		0.61	
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Par GV	ticle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3	•	%	One Olay
0.02 - 0.1 0.12 - 0.24 0.32 - 0.4		6.06B 2.4B 0.76B		1087.4l 1007.8l 444B	_	1A	0.92 1.15 1.30	21.03 11.44 1.67		
0.42 - 0.62		0.41B		371.8E	0.0	3A	1.45	0.92		
0.77 - 0.97 1.52 - 1.82		0.12B 0.05B		235.4E 289.6E			1.52	5.21 4.88		
Depth	COLE		Grav	imetric/V	olumetric \	Water Con			K sat	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

<sup>0.02 - 0.1</sup> 0.12 - 0.24 0.32 - 0.4 0.42 - 0.62 0.77 - 0.97 1.52 - 1.82

**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