BAGO-MARAGLE FOREST SOIL SURVEY Project Name:

Project Code: Observation ID: 1 **BGM FSS** Site ID: 0151

Agency Name: CSIRO Division of Soils (ACT)

Site Information

Locality: Desc. By: P. Ryan

Date Desc.: Elevation: 1145 metres 07/04/97 Map Ref.: Sheet No.: 8526 DGPS Rainfall: No Data Northing/Long.: Runoff: 6041174 AMG zone: 55 No Data

Easting/Lat.: 616077 Datum: AGD66 Drainage: Very poorly drained

Geology

ExposureType: Undisturbed soil core Conf. Sub. is Parent. Mat.: No Data Geol. Ref.: Substrate Material: Schist Th

Land Form

Rel/Slope Class: No Data Pattern Type: No Data Morph. Type: Flat Relief: No Data Elem. Type: Slope Category: Valley flat No Data No Data Aspect: Slope: 0 %

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification: N/A **Mapping Unit:** Melacic Kandosolic Redoxic Hydrosol Very thick Non-gravelly **Principal Profile Form:** Gn2.82

Clayey Clayey Very deep

ASC Confidence: Wiesenboden **Great Soil Group:**

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

01 0 - 0.05 m Organic Layer: : Black (5YR2.5/1-Moist); ; Clay loam (Sapric); Weak grade of structure, 5-10 mm, Angular blocky; A11 0.05 - 0.21 m Rough-ped fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular tabular, Quartz, coarse fragments; Field pH 4.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Clear change to -(2.5Y2.5/1-Moist); ; Light clay (Sapric); Weak grade of structure, 10-20 mm, Angular blocky; A12 0.21 - 0.53 m Rough-ped fabric; Moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, angular tabular, Quartz, coarse fragments; Field pH 4.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Clear change to -Very dark grey (10YR3/1-Moist); ; Light medium clay; Massive grade of structure; Earthy fabric; A13 0.53 - 1.2 m Moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, subangular tabular, Quartz, coarse fragments; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Sharp change to -Grey (5Y6/1-Moist); Substrate influence, 10YR68, 10-20%, Distinct; Substrate influence, B2 1.2 - 1.49 m 2.5Y51, 2-10%, Faint; Light clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 7

(Raupach); Few, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Abrupt change to -

C₁ 1.49 - 1.81 m Dark bluish grey (5B4/1-Moist); Substrate influence, 10-20%, Distinct; Massive grade of structure; Moist; Weak consistence; Field pH 6.5 (Raupach); Abrupt change to

Strong brown (7.5YR5/8-Moist); Substrate influence, 10-20%, Distinct; Substrate influence, C2 1.81 - 2.03 m 2.5Y76, 0-2%, Faint; Massive grade of structure; Moist; Weak consistence; Field pH 7

(Raupach); Abrupt change to

C32.03 - 3.17 m ; Massive grade of structure; Moderately moist; Weak consistence; Field pH 8.5 (Raupach); Abrupt change to -

3.17 - 3.45 m Yellowish brown (10YR5/6-Moist); ; Massive grade of structure; Moderately moist; Firm consistence; Field pH 7.5 (Raupach);

2C1 4.2 - 4.65 m Yellowish brown (10YR5/6-Moist); ; Massive grade of structure; Moderately moist; Firm

consistence; Field pH 8 (Raupach);

Morphological Notes

2C1

BAGO-MARAGLE FOREST SOIL SURVEY Project Name:

Project Code: BGM_FSS Site ID: 0151 Observation ID: 1

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

Organic horizon. Abundant roots with occasional quartz gravel. Fine roots have redoxic coatings. Fine muscovite mica.

A12

A13 Fine muscovite mica present.

B2 Thin B horizon, Fe stains adjacent to roots. Fine muscovite mica present.

C1 Weathering granodiorite.

C2 Weathering granodiorite with strong Fe - staining.

СЗ Slightly less weathered granodiorite.

2C1 Meta-sediments! Phyllite xenolith or part of the meta-sediment screen to the south

(BM083).

Meta-sediments. 2C1

Observation Notes

Drillcore site. Macpherson's Plains, west of eastern power line road. Site is beside stream 50m west of powerline.

Site Notes

MCPHERSON'S PLAIN-EASTERN POWERLINE RD

BAGO-MARAGLE FOREST SOIL SURVEY

Project Name: Project Code: Agency Name: BGM_FSS Site ID: 0151 Observation ID: 1

CSIRO Division of Soils (ACT)

	Laboratory	/ Test Results:
--	------------	-----------------

Depth	рН	1:5 EC		hangeable			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca I	Иg	K	Na Cmol (+	Acidity)/kg			%
0 - 0.05 0.05 - 0.21	4.06C		4.49H	1.62	0.29	0.13	8.09J 0K		14.61E	
0.21 - 0.53	4.14C		2.6H	1.31	0.12	0.05	4.93J 0K		9.01E	
0.53 - 1.2	4.35C		3.28H	1.47	0.14	0.04	2.26J 0K		7.19E	
1.2 - 1.49	5.08C		4.06H	1.94	0.33	0.04	0.01J 0.44K		6.82E	
1.49 - 1.81	5.31C		3.31H	1.35	0.35	0.03	0.44K 0J 0.41K		5.45E	
1.81 - 2.03 2.03 - 3.17 3.17 - 3.45 4.2 - 4.65							0.41K			
Depth m	CaCO3	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Partic GV C	cle Size S FS %	Analysis Silt Clay
0 - 0.05 0.05 - 0.21 0.21 - 0.53 0.53 - 1.2 1.2 - 1.49 1.49 - 1.81 1.81 - 2.03 2.03 - 3.17 3.17 - 3.45 4.2 - 4.65		8.94B 2.48B 1.68B 0.2B 0.16B		1232.8 644.6E 618.8E 96B 53.5B	3 0.1 3 0.1 0.0	8A 1A 2A	0.81 1.08 1.40	15.55 10.13 19.69 13.68 9.71 5.12 8.26 13.86 36.2		
Depth	COLE	_				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

0 - 0.05 0.05 - 0.21 0.21 - 0.53 0.21 - 0.53 0.53 - 1.2 1.2 - 1.49 1.49 - 1.81 1.81 - 2.03 2.03 - 3.17 3.17 - 3.45 4.2 - 4.65

BAGO-MARAGLE FOREST SOIL SURVEY Project Name:

Project Code: BGM_FSS Site ID: 0151 Observation ID: 1

Agency Name: CSIRO Division of Soils (ACT)

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/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 (%)

P3A1 Bulk density - g/cm3