Project Name: BAGO-MARAGLE ESM

Project Code: BGM_ESM Site ID: 1025 Observation ID: 1

Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: P. Ryan Locality:

Date Desc.: Elevation: 05/04/95 1193 metres Map Ref.: Sheet No.: 8526 DGPS Rainfall: No Data Northing/Long.: 6043735 AMG zone: 55 Runoff: Slow Easting/Lat.: 611736 Datum: AGD66 Well drained Drainage:

Geology

ExposureType: Soil pit Conf. Sub. is Parent. Mat.: Probable Geol. Ref.: SGGH Substrate Material: No Data

Land Form

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:Mid-slopeRelief:No DataElem. Type:HillslopeSlope Category:No DataSlope:17 %Aspect:90 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/AAcidic Dystrophic Red Kandosol Medium Non-gravelly ClayeyPrincipal Profile Form:Gn2.11

Clayey Very deep

ASC Confidence: Great Soil Group: Red earth

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 0-2%, cobbly, 60-200mm, subangular tabular,

Profile Morphology

O1 0 - 0.03 m Organic Layer; ;

A1 0.03 - 0.15 m Dark reddish brown (5YR3/2-Moist); Biological mixing, 10-20%, Faint; Biological mixing, 10-20%, Faint; Light clay; Strong grade of structure, 2-5 mm, Polyhedral; 100-200 mm, Prismatic;

Rough-ped fabric; Moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, subangular tabular, dispersed, coarse fragments; Field pH 6 (pH meter); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear,

Smooth change to -

B1 0.15 - 0.28 m Dark reddish brown (5YR3/4-Moist); Biological mixing, 2-10%, Distinct; Fine sandy light clay;

Moderate grade of structure, 5-10 mm, Polyhedral; 50-100 mm, Columnar; Smooth-ped fabric; Moderately moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, subangular tabular, dispersed, coarse fragments; 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; Common, medium (2-

5mm) roots; Few, coarse (>5mm) roots; Clear, Irregular change to -

B21 0.28 - 0.53 m Yellowish red (5YR4/6-Moist); Biological mixing, 0-2% , Distinct; Clay loam, sandy; Weak grade

of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 0-2%, coarse gravelly, 20-60mm, subangular tabular, dispersed, coarse fragments; 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; Few, medium (2-5mm) roots; Few, coarse

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

B22 0.53 - 0.78 m Yellowish red (5YR4/6-Moist); Biological mixing, 0-2%, Faint; Clay loam, sandy; Massive grade

of structure; Earthy fabric; Moderately moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, subangular tabular, dispersed, coarse fragments; 0-2%, medium gravelly, 6-20mm, angular tabular, dispersed, Coal, coarse fragments; Field pH 5 (pH meter); Few, very fine (0-

1mm) roots; Few, fine (1-2mm) roots; Gradual, Irregular change to -

B23 0.78 - 1.28 m Yellowish red (5YR4/6-Moist); Substrate influence, 2-10%, Faint; Fine sandy clay loam;

Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, subangular tabular, dispersed, coarse fragments; 0-2%, medium gravelly, 6-20mm, angular tabular, dispersed, Coal, coarse fragments; 2-10%, coarse gravelly, 20-60mm, subrounded tabular, dispersed, coarse fragments; Field pH 5 (pH meter); Few, very fine (0-1mm)

roots; Diffuse change to -

BAGO-MARAGLE ESM Project Name:

Project Code: Agency Name: BGM_ESM Site ID: 1025 Observation ID: 1

CSIRO Division of Soils (ACT)

Strong brown (7.5YR4/6-Moist); ; Fine sandy clay loam; Earthy fabric; 2-10%, coarse gravelly, 20-60mm, subrounded tabular, dispersed, coarse fragments; Field pH 5 (pH meter); 1.28 - 1.98 m

Morphological Notes

Increase in course fragments of feldspar10 to 20%, 6 - 20 mm. Mafic substrate B23

increases in abundance in this layer and below.

Observation Notes

PGP centre peg 6 m south west. Wet ash site.

Site Notes

PGP18, BAGO S.F., COMPT 94

1025 Observation ID: 1

Project Name: BAGO-MARAGLE ESM
Project Code: BGM_ESM Site ID: 102
Agency Name: CSIRO Division of Soils (ACT)

Laboratory Test Results:

| Laboratory | | | | | | | | | | |
|-------------|----------------|--------------|-------------|---------------|----------------------|---------------|-----------------|-------|------------|-----------------------|
| Depth | pН | 1:5 EC | | hangeable | | | Exchangeable | CEC | ECEC | ESP |
| m | | dS/m | Ca | Mg K | | Na Cmol (+ | Acidity)/kg | | | % |
| 0.03 - 0.11 | 4.39C 5.22A | | 2.27H | 0.65 | 0.66 | 0.02 | 3.35J 0K | | 6.94E | Ē |
| 0.18 - 0.28 | 4.39C 5.31A | | 1H | 0.53 | 0.45 | 0.01 | 1.4J 0K | | 3.4E | |
| 0.33 - 0.41 | 4.35C 5.41A | | 0.98H | 0.65 | 0.52 | 0.02 | 1.39J 0K | | 3.56E | |
| 0.53 - 0.63 | 4.07C 5.14A | | 0.14H | 0.17 | 0.47 | 0 | 2.48J 0K | | 3.26E | |
| 0.83 - 1.03 | 4.08C 5.16A | | 0.05H | 0.2 | 0.26 | 0 | 2.16J 0K | | 2.67E | |
| 1.53 - 1.83 | 4.13C 5.17A | | 0.04H | 0.18 | 0.25 | 0.03 | 1.69J 0K | | 2.2E | |
| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | l Total K | Bulk Density | | ticle Size | Analysis Silt Clay |
| m | % | % | mg/kg | % | % | % | Mg/m3 | | % | • |
| 0.03 - 0.11 | | 4.04B | | 488.5E | 3 0.2 | 21A | 1.08 | 16.99 | | |
| 0.18 - 0.28 | | 1.42B | | 347.9E | | 18A | 1.39 | 7.79 | | |
| 0.33 - 0.41 | | 0.84B | | 313.5E | |)5A | 1.25 | 6.66 | | |
| 0.53 - 0.63 | | 0.35B | | 278.7E | |)2A | 1.32 | 4.01 | | |
| 0.83 - 1.03 | | 0.1B | | 262.4E | | 1A | 1.64 | 10.84 | | |
| 1.53 - 1.83 | | 0.09B | | 308.3E | 3 0.0 |)1A | | 10.74 | | |
| Depth | COLE | | | | | | | | | K unsat |
| m | | Sat. | 0.05 Bar | 0.1 Bar g/ | 0.5 Bar /g - m3/n | 1 Bar 13 | 5 Bar 15 | Bar | mm/h | mm/h |

^{0.03 - 0.11} 0.18 - 0.28

^{0.33 - 0.41} 0.53 - 0.63 0.83 - 1.03 1.53 - 1.83

BAGO-MARAGLE ESM Project Name:

Project Code: BGM_ESM Site ID: Observation ID: 1 1025

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/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