

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0088 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

| | | | |
|------------------------|-----------------------|-------------------|--------------|
| Desc. By: | P. Ryan | Locality: | |
| Date Desc.: | 14/03/96 | Elevation: | 1124 metres |
| Map Ref.: | Sheet No. : 8526 DGPS | Rainfall: | No Data |
| Northing/Long.: | 6053239 AMG zone: 55 | Runoff: | No Data |
| Easting/Lat.: | 613934 Datum: AGD66 | Drainage: | Well drained |

Geology

| | | | |
|----------------------|---------|------------------------------------|--------------|
| ExposureType: | No Data | Conf. Sub. is Parent. Mat.: | No Data |
| Geol. Ref.: | Tb | Substrate Material: | Granodiorite |

Land Form

| | | | |
|-------------------------|-------------|------------------------|-------------|
| Rel/Slope Class: | No Data | Pattern Type: | No Data |
| Morph. Type: | Lower-slope | Relief: | No Data |
| Elem. Type: | Hillslope | Slope Category: | No Data |
| Slope: | 8 % | Aspect: | 315 degrees |

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

| | | |
|---|--------------------------------|-----------|
| Australian Soil Classification: | Mapping Unit: | N/A |
| Acidic Mesotrophic Red Dermosol Medium Slightly gravelly Clay-loamy Clayey Very deep | Principal Profile Form: | Uf6.11 |
| ASC Confidence: All necessary analytical data are available. | Great Soil Group: | Krasnozem |

Site Disturbance: No effective disturbance other than grazing by hoofed animals

Vegetation:

Surface Coarse Fragments: 2-10%, fine gravelly, 2-6mm, angular tabular, Coal

Profile Morphology

| | | |
|-----|---------------|---|
| O1 | 0 - 0.01 m | Organic Layer; ; |
| A1 | 0.01 - 0.14 m | Dark reddish brown (5YR3/2-Moist); Biological mixing, 5YR44, 2-10% , Faint; Clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular tabular, Coal, coarse fragments; Field pH 6 (Raupach); Abundant, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual, Smooth change to - |
| A3 | 0.14 - 0.29 m | Dark reddish brown (5YR3/3-Moist); Biological mixing, 5YR44, 10-20% , Faint; Light clay; Strong grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to - |
| B1 | 0.29 - 0.45 m | Dark reddish brown (2.5YR3/4-Moist); Biological mixing, 5YR33, 2-10% , Faint; Light clay; Moderate grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, angular tabular, Coal, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to - |
| B21 | 0.45 - 0.91 m | Dark red (2.5YR3/6-Moist); Biological mixing, 5YR33, 0-2% , Distinct; Light clay; Massive grade of structure; Earthy fabric; Moderately moist; Very firm consistence; 0-2%, fine gravelly, 2-6mm, angular tabular, Coal, coarse fragments; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; |
| B21 | 0.91 - 1.71 m | Dark red (2.5YR3/6-Moist); ; Light clay; Massive grade of structure; Earthy fabric; Moderately moist; Firm consistence; Field pH 4.5 (Raupach); |
| B21 | 1.71 - 2.41 m | Dark red (2.5YR3/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Very firm consistence; Field pH 4.5 (Raupach); Diffuse change to - |
| B22 | 2.41 - 3.01 m | Yellowish red (5YR4/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Firm consistence; Field pH 4.5 (Raupach); |

Morphological Notes

B1 From this layer on, density increases.

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0088 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

B21 Small patch of charcoal pieces at 90cm. This layer continues to 2.4m and has been split at arbitrary depths.

Observation Notes

Logged alpine ash stand. Regen. approx. 15yr old. Site has also been burnt post logging. Dense Acacia understorey. Snig tracks occur within plot. PM is uncertain.

Site Notes

3101-1 C31H 250M 86D FR EAST PL RD

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS Site ID: 0088 Observation ID: 1
Agency Name: CSIRO Division of Soils (ACT)

Laboratory Test Results:

| Depth | pH | 1:5 EC | Ca | Exchangeable Cations | | Exchangeable | CEC | ECEC | ESP |
|-------------|-------|--------|--------|----------------------|------|--------------|-------------|--------|-----|
| m | | dS/m | | Mg | K | Na | Acidity | | % |
| | | | | | | Cmol (+)/kg | | | |
| 0 - 0.01 | | | | | | | | | |
| 0.01 - 0.14 | 5.08C | | 19.65H | 3.49 | 1.81 | 0.07 | 0.89J 0K | 25.91E | |
| 0.14 - 0.29 | 4.93C | | 10.07H | 2.74 | 1.73 | 0.04 | 1.05J 0K | 15.63E | |
| 0.29 - 0.45 | 4.76C | | 6.79H | 2.52 | 1.67 | 0.04 | 1.45J 0K | 12.46E | |
| 0.45 - 0.91 | 4.3C | | 3.21H | 1.89 | 1.34 | 0.09 | 3.68J 0K | 10.21E | |
| 0.91 - 1.71 | 4.24C | | 2.88H | 1.66 | 0.76 | 0.06 | 3.17J 0K | 8.54E | |
| 1.71 - 2.41 | 4.16C | | 2.28H | 1.15 | 0.6 | 0.08 | 3.88J 0K | 7.99E | |
| 2.41 - 3.01 | 4.06C | | 1.55H | 0.8 | 0.55 | 0.11 | 4.9J 0K | 7.91E | |

| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | Particle Size | | Analysis | |
|-------------|-------|-----------|----------|---------|---------|---------|--------------|---------------|----|----------|-----------|
| m | % | % | mg/kg | % | % | % | Mg/m3 | GV | CS | FS % | Silt Clay |
| 0 - 0.01 | | | | | | | | | | | |
| 0.01 - 0.14 | | 8.77B | | 1588.8B | 0.46A | | 0.68 | 44.87 | | | |
| 0.14 - 0.29 | | 4.05B | | 1379.3B | 0.25A | | 1.04 | 37.91 | | | |
| 0.29 - 0.45 | | 1.94B | | 967.5B | 0.14A | | 1.11 | 42.62 | | | |
| 0.45 - 0.91 | | 0.92B | | 714.8B | 0.06A | | 1.01 | 34.21 | | | |
| 0.91 - 1.71 | | 0.56B | | 792B | 0.05A | | | 36.97 | | | |
| 1.71 - 2.41 | | 0.29B | | 675.2B | 0.04A | | | 41.91 | | | |
| 2.41 - 3.01 | | 0.27B | | 766.1B | 0.04A | | | 37.29 | | | |

[illegible]

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0088 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Laboratory Analyses Completed for this profile

| | |
|----------|---|
| 13C1_AL | Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon |
| 13C1_FE | Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon |
| 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 (%) |
| P3A1 | Bulk density - g/cm3 |