**Project Name:** **EDEN BURNING STUDY AREA**
**Project Code:** **1000638** **Site ID:** **EDB_SA34** **Observation ID:** **1**
**Agency Name:** **CSIRO Division of Soils (ACT)**

## Site Information

**Desc. By:** P. Ryan
**Date Desc.:** 01/09/87
**Map Ref.:** Sheet No. : 8823 1:25000
**Northing/Long.:** 5878520 AMG zone: 55
**Easting/Lat.:** 734430 Datum: AGD66
**Locality:**
**Elevation:** 340 metres
**Rainfall:** No Data
**Runoff:** No Data
**Drainage:** Well drained

## Geology

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

## Land Form

**Rel/Slope Class:** No Data
**Morph. Type:** Mid-slope
**Elem. Type:** Hillslope
**Slope:** 18 %
**Pattern Type:** No Data
**Relief:** 0 metres
**Slope Category:** No Data
**Aspect:** 45 degrees

## Surface Soil Condition (dry): Loose

## Erosion:

## Soil Classification

**Australian Soil Classification:**
N/A
**ASC Confidence:**
Confidence level not specified
**Mapping Unit:** N/A
**Principal Profile Form:** Gn2.21
**Great Soil Group:** Brown earth

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

## Vegetation:

## Surface Coarse Fragments: 10-20%, medium gravelly, 6-20mm, subangular, ; No surface coarse fragments

## Profile Morphology

| | | |
|---|---|---|
| O1 | 0 - 0.02 m | Organic Layer; ; Coarse sandy loam; Clear, Wavy change to - |
| A1 | 0.02 - 0.17 m | Brown (7.5YR4/4-Moist); ; Coarse sandy loam; Weak grade of structure, 5-10 mm, Polyhedral; <2 mm, Granular; Earthy fabric; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular, dispersed, coarse fragments; Field pH 5.5 (Raupach); Many, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Gradual, Irregular change to - |
| B21 | 0.17 - 0.52 m | Strong brown (7.5YR5/8-Moist); ; Coarse sandy clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Earthy fabric; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular, dispersed, coarse fragments; 20-50%, cobbly, 60-200mm, subangular, dispersed, coarse fragments; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Gradual, Irregular change to - |
| B22 | 0.52 - 0.69 m | Reddish yellow (7.5YR6/8-Moist); ; Weak grade of structure, 2-5 mm, Granular; Earthy fabric; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular, reoriented, coarse fragments; 20-50%, cobbly, 60-200mm, subangular, reoriented, coarse fragments; Field pH 4.5 (Raupach); Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Abrupt, Smooth change to - |
| Cr | 0.69 - 0.78 m | ; 20-50%, medium gravelly, 6-20mm, subangular, undisturbed, coarse fragments; 20-50%, cobbly, 60-200mm, subangular, undisturbed, coarse fragments; |

## Morphological Notes

## Observation Notes

Shallow soil. PM present as surface sheet. Sarub vegetation reflects this. Little profile development. Current surface condition = water repellent.

## Site Notes

DP91

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## Laboratory Test Results:

| Depth | pH | 1:5 EC | Exchangeable Cations | | | | Exchangeable Acidity | CEC | ECEC | ESP |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Ca | Mg | K | Na | | | | |
| m | | dS/m | Cmol (+)/kg | | | | | | | % |
| 0.02 - 0.1 | 4I<br>5.28H | | 0.66F | 1.89 | 0.33 | 0.08 | 0.71G | | | |
| 0.32 - 0.4 | 4.16I<br>5.44H | | 3.48F | 1.36 | 0.45 | 0.13 | 0.27G | | | |
| 0.52 - 0.69 | 3.8I<br>4.92H | | 0.52F | 1.37 | 0.59 | 2.38 | 3.58G | | | |

| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | Particle Size Analysis GV | CS | FS | Silt | Clay |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m | % | % | mg/kg | % | % | % | Mg/m3 | | | % | | |
| 0.02 - 0.1 | | 2.03A | | 26F | <0.01E | | | 26.7 | | | | |
| 0.32 - 0.4 | | 6.34A | | 52F | <0.01E | | | 19.9 | | | | |
| 0.52 - 0.69 | | 1.35A | | 39F | <0.01E | | | 44 | | | | |

| Depth | COLE | Gravimetric/Volumetric Water Contents | | | | | | K sat | K unsat |
|---|---|---|---|---|---|---|---|---|---|
| | | Sat. | 0.05 Bar | 0.1 Bar | 0.5 Bar | 1 Bar | 5 Bar | 15 Bar | |
| m | | g/g - m3/m3 | | | | | | mm/h | mm/h |
| 0.02 - 0.1 | | | | | | | | | |
| 0.32 - 0.4 | | | | | | | | | |
| 0.52 - 0.69 | | | | | | | | | |

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**Laboratory Analyses Completed for this profile**

| | |
|---|---|
| 15D1_CA | Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach |
| 15D1_K | Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach |
| 15D1_MG | Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach |
| 15D1_NA | Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach |
| 15G_C_AL2 | Exchangeable aluminium - meq per 100g of soil - Aluminium By KCl extraction and detremination By AAS |
| 2A1 | Air-dry moisture content |
| 4A_C_1 | pH of soil - pH of 1:1 soil/water suspension |
| 4C_C_1 | pH of 1:1 soil/1M potassium chloride suspension |
| 6A1 | Organic carbon - Walkley and Black |
| 7A1 | Total nitrogen - semimicro Kjeldahl, steam distillation |
| 9A_NR | Total element - P(%) - Not recorded |
| P10_GRAV | Gravel (%) |