

**Project Name:** EDEN BURNING STUDY AREA  
**Project Code:** 1000638      **Site ID:** EDB\_SA40      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

#### Site Information

<b>Desc. By:</b> P. Ryan	<b>Locality:</b>
<b>Date Desc.:</b> 02/09/87	<b>Elevation:</b> 270 metres
<b>Map Ref.:</b> Sheet No. : 8823 1:25000	<b>Rainfall:</b> No Data
<b>Northing/Long.:</b> 5877100 AMG zone: 55	<b>Runoff:</b> No Data
<b>Easting/Lat.:</b> 734330 Datum: AGD66	<b>Drainage:</b> Well drained

#### Geology

<b>ExposureType:</b> Soil pit	<b>Conf. Sub. is Parent. Mat.:</b> No Data
<b>Geol. Ref.:</b> Dgwa	<b>Substrate Material:</b> Sand

#### Land Form

<b>Rel/Slope Class:</b> No Data	<b>Pattern Type:</b> No Data
<b>Morph. Type:</b> Mid-slope	<b>Relief:</b> 0 metres
<b>Elem. Type:</b> Hillslope	<b>Slope Category:</b> No Data
<b>Slope:</b> 15 %	<b>Aspect:</b> 45 degrees

**Surface Soil Condition (dry):** Loose

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b> N/A	<b>Mapping Unit:</b> N/A
<b>ASC Confidence:</b> Confidence level not specified	<b>Principal Profile Form:</b> Gn2.21
	<b>Great Soil Group:</b> Yellow earth

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

#### Vegetation:

**Surface Coarse Fragments:** 20-50%, medium gravelly, 6-20mm, subangular, Quartz; No surface coarse fragments

#### Profile Morphology

O1	0 - 0.04 m	Organic Layer; ; Loamy coarse sand; Moderately moist; Clear, Wavy change to -
A1	0.04 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); ; Coarse sandy loam; Weak grade of structure, 2-5 mm, Granular; Earthy fabric; Moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular, dispersed, Quartz, coarse fragments; Few (2 - 10 %), Ferruginous, Coarse (6 - 20 mm), Nodules, strong, segregations;Field pH 4.5 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Clear, Irregular change to -
A3	0.1 - 0.24 m	Brown (10YR4/3-Moist); ; Coarse sandy clay loam; Weak grade of structure, 2-5 mm, Granular; Earthy fabric; Moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular, dispersed, Quartz, coarse fragments; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Nodules, strong, segregations;Field pH 5 (Raupach); Many, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Gradual, Wavy change to -
B1	0.24 - 0.54 m	Light yellowish brown (10YR6/4-Moist); ; Medium sandy clay loam; Moderate grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular, dispersed, Quartz, coarse fragments; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Nodules, strong, segregations;Field pH 5 (Raupach); Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual, Wavy change to -
B2	0.54 - 0.84 m	Brownish yellow (10YR6/6-Moist); ; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular, dispersed, Sand, coarse fragments; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, Sand, coarse fragments; Few, medium (2-5mm) roots;

#### Morphological Notes

O1	High faunal activity.	
A1	5-10mm also dominant ped size.	High faunal activity.
A3	High faunal activity.	

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B1      More sand & is more dispersive than      overlying horizon.      (Substrate given  
as Cr horizon)

**Observation Notes**

Lense of sand grains.

**Site Notes**

DP49 - NE slope off ridgeline.

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**Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Cations		Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
				Mg	K					
0.04 - 0.12	3.76I 4.74H		2.24F	1.04	0.25	0.13	0.56G			
0.34 - 0.42	3.99I 5.22H		0.67F	0.79	0.22	0.07	0.65G			
0.54 - 0.84	4.03I 5.37H		0.69F	2.56	0.3	0.15	0.33G			

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0.04 - 0.12		7A		33F	<0.01E			35.8	69.5F	20.5	8.5	1.5
0.34 - 0.42		0.9A		23F	<0.01E			38.7	54.8F	20.1	13.9	11.2
0.54 - 0.84		0.6A		19F	<0.01E			30.4	55.2F	9.3	14.7	20.8

[illegible]

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**Laboratory Analyses Completed for this profile**

15D1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 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
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 (%)
P10_HYD_C	Clay (%) - Hydrometer Method
P10_HYD_CS	Coarse Sand (%) - Hydrometer Method
P10_HYD_FS	Fine Sand (%) - Hydrometer Method
P10_HYD_Z	Silt (%) - Hydrometer Method