

**Project Name:** EDEN BURNING STUDY AREA  
**Project Code:** 1000638 **Site ID:** EDB\_SA56 **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>	09/09/87	<b>Elevation:</b>	280 metres
<b>Map Ref.:</b>	Sheet No. : 8823 1:25000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	5877490 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	733730 Datum: AGD66	<b>Drainage:</b>	Imperfectly drained

**Geology**

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

**Land Form**

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Lower-slope	<b>Relief:</b>	0 metres
<b>Elem. Type:</b>	Footslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	20 %	<b>Aspect:</b>	0 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>	Uc.
		<b>Great Soil Group:</b>	Humic gley

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

**Vegetation:**

**Surface Coarse Fragments:** No surface coarse fragments; 20-50%, , subangular, Quartz; 20-50%, , rounded, Quartz

**Profile Morphology**

O1	0 - 0.05 m	Organic Layer; ; Coarse sandy loam; Moist; Gradual, Smooth change to -
A11	0.05 - 0.13 m	; Coarse sandy clay loam; Weak grade of structure, 5-10 mm, Granular; Earthy fabric; Moist; Very weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 4 (Raupach); Abundant, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Clear, Wavy change to -
A12	0.13 - 0.29 m	Black (10YR2/1-Moist); ; Coarse sandy loam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Abundant, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Abrupt, Wavy change to -
A13	0.29 - 0.4 m	Dark grey (10YR4/1-Moist); ; Clayey coarse sand; Weak grade of structure, 5-10 mm, Granular; Earthy fabric; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 5 (Raupach); Many, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Clear, Smooth change to -
A2c	0.4 - 0.48 m	Light brownish grey (10YR6/2-Moist); ; Clayey coarse sand; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Clear, Smooth change to -
B21	0.48 - 0.65 m	Yellowish brown (10YR5/4-Moist); ; Coarse sandy clay loam; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Firm consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Common, medium (2-5mm) roots;
B22	0.65 - 0.9 m	Yellow (10YR7/6-Moist); , 20-50% , Distinct; , 10-20% , Faint; Massive grade of structure; Firm consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 5 (Raupach); Few, fine (1-2mm) roots;

**Morphological Notes**

O1	Thick humic A horizon.	Moist Munsell given = 7.5YR 2/0
A11	Dominant ped size also 10-20mm.	

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A13      Bleached A2 horizon.

A2c      Faintly illuvial.

B21      Mottled.

**Observation Notes**

Similar to YA54. Infilled root channel   occur vertically in profile.

**Site Notes**

DP80 - footslope before drainage line

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				CMol (+)/kg				%
0.05 - 0.13	3.47I 4.28H		0.1F	2.3	0.46	0.22	0.78G			
0.13 - 0.29	3.71I 4.92H		0.92F	2.56	0.28	0.28	1.01G			
0.35 - 0.43	4.02I 5.3H		0.08F	0.68	0.11	0.06	0.34G			
0.48 - 0.65	4.08I 5.33H		0.07F	0.84	0.15	0.05	0.34G			
0.65 - 0.9	3.91I 5.3H		0.01F	2.05	0.23	0.11	0.53G			

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
0.05 - 0.13		10.9A		70F	<0.01E			30.8	
0.13 - 0.29		5.04A		50F	<0.01E			21.9	
0.35 - 0.43		1.46A		14F	<0.01E			29.9	
0.48 - 0.65		0.37A		14F	<0.01E			32.3	
0.65 - 0.9		0.35A		6F	<0.01E			25	

[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 (%)