Project Name: **EDEN BURNING STUDY AREA**
Project Code: **1000638** **Site ID:** **EDB_SA58** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: P. Ryan
Date Desc.: 10/09/87
Map Ref.: Sheet No. : 8823 1:25000
Northing/Long.: 5877750 AMG zone: 55
Easting/Lat.: 735270 Datum: AGD66
Locality:
Elevation: 290 metres
Rainfall: No Data
Runoff: No Data
Drainage: Well drained

Geology

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

Land Form

Rel/Slope Class: No Data
Morph. Type: Lower-slope
Elem. Type: Footslope
Slope: 10 %
Pattern Type: No Data
Relief: 0 metres
Slope Category: No Data
Aspect: 225 degrees

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:
N/A
ASC Confidence:
Confidence level not specified
Mapping Unit: N/A
Principal Profile Form: N/A
Great Soil Group: Podzol

Site Disturbance:

Vegetation:

Surface Coarse Fragments: 20-50%, fine gravelly, 2-6mm, subangular, Quartz

Profile Morphology

O1	0 - 0.03 m	Organic Layer; ; Coarse sandy clay loam; Moist; Gradual, Wavy change to -
A11	0.03 - 0.2 m	; Coarse sandy clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Earthy fabric; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 4.5 (Raupach); Many, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Clear, Irregular change to -
A12	0.2 - 0.33 m	Greyish brown (10YR5/2-Moist); ; Coarse sandy loam; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Smooth change to -
A2c	0.33 - 0.46 m	Pale brown (10YR6/3-Moist); ; Coarse sandy loam; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Moist; Firm consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 5 (Raupach); Few, fine (1-2mm) roots; Gradual, Irregular change to -
B1h	0.46 - 0.68 m	Pale brown (10YR6/3-Moist); , 7.5YR32, 20-50% , Distinct; Coarse sandy clay; Massive grade of structure; Earthy fabric; Moist; Firm consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Many (20 - 50 %), Organic (humified), Coarse (6 - 20 mm), Soft segregations; Many (20 - 50 %), Organic (humified), Very coarse (20 - 60 mm), Soft segregations; Many (20 - 50 %), Organic (humified), Coarse (6 - 20 mm), Veins; Many (20 - 50 %), Organic (humified), Very coarse (20 - 60 mm), Veins; Many (20 - 50 %), Organic (humified), Coarse (6 - 20 mm), Tubules; Ortstein, Weakly cemented; Field pH 5 (Raupach); Few, fine (1-2mm) roots;
B2h	0.68 - 0.88 m	Yellowish brown (10YR5/8-Moist); , 20-50% , Prominent; , 10-20% , Distinct; Medium clay; Massive grade of structure; Earthy fabric; Moist; Very firm consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, prominent; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Soft segregations; Common (10 - 20 %), Ferruginous, Very coarse (20 - 60 mm), Soft segregations; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Common (10 - 20 %), Ferruginous, Very coarse (20 - 60 mm), Nodules; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Veins; Ortstein, Weakly cemented; Field pH 5.5 (Raupach); Few, fine (1-2mm) roots;

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B2h	0.88 - 1.13 m	Yellowish brown (10YR5/8-Moist); , 20-50% , Prominent; , 10-20% , Distinct; Massive grade of structure; Earthy fabric; Very firm consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, prominent; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Soft segregations; Common (10 - 20 %), Ferruginous, Very coarse (20 - 60 mm), Soft segregations; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Common (10 - 20 %), Ferruginous, Very coarse (20 - 60 mm), Nodules; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Veins; Few, medium (2-5mm) roots;

Morphological Notes

O1	Moist Munsell = 7.5YR 2/0.
B1h	Hard nodules. Also segregation form of tubules. Seg. amount also 20-50%.
B2h	Coarse sand fraction. Hard nodules. Alsosegregation form of tubules. Seg. amountalso 20-50%.

Observation Notes

A deep podzol profile. Illuvial OM extending to 1m. Organic coatings over sand grains in vughs, or root channels or in voids. Fe-nodules in B2hs.

Site Notes

DP69 -open sloping drainage depression

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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							%
0.03 - 0.11	3.61I 4.41H		1.99F	1.59	0.31	0.1	1.08G			
0.33 - 0.41	4.1I 4.88H		0.11F	0.18	0.09	0.04	0.55G			
0.46 - 0.68	4.18I 4.84H		0.08F	0.26	0.17	0.05	0.79G			
0.68 - 0.88	4.18I 4.95H		0.09F	0.63	0.43	0.1	1.69G			
0.88 - 1.13	4.01I 4.91H		0.18F	1.36	0.82	0.18	3.01G			

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			%		
0.03 - 0.11		1.82A		47.4F	<0.01E			16.4	64.9F	19.7	14.3	1.2
0.33 - 0.41		0.47A		13.7F	<0.01E			21.9	61.4F	22	14.7	1.9
0.46 - 0.68		0.67A		13.6F	<0.01E			23.7	59.5F	17.4	15.4	7.7
0.68 - 0.88		1.11A		22.8F	<0.01E			28.6	49.3F	14.7	13.1	25.9
0.88 - 1.13		1.03A		17.7F	<0.01E			26.1	34.7F	12.4	10	42.9

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
0.03 - 0.11									
0.33 - 0.41									
0.46 - 0.68									
0.68 - 0.88									
0.88 - 1.13									

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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
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