Project Name: YAMBULLA RESEARCH CATCHMENTS
Project Code: 1000196 **Site ID:** YAM_RC22 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: P. Ryan
Date Desc.: 08/10/86
Map Ref.: Sheet No. : 8823 1:25000
Northing/Long.: 5868795 AMG zone: 55
Easting/Lat.: 736100 Datum: AGD66
Locality:
Elevation: No Data
Rainfall: No Data
Runoff: No Data
Drainage: Moderately well drained

Geology

ExposureType: Soil pit
Geol. Ref.: DGL
Conf. Sub. is Parent. Mat.: Probable
Substrate Material: Adamellite

Land Form

Rel/Slope Class: No Data
Morph. Type: Mid-slope
Elem. Type: Hillslope
Slope: 17 %
Pattern Type: No Data
Relief: 0 metres
Slope Category: No Data
Aspect: 0 degrees

Surface Soil Condition (dry): Soft

Erosion: Stable, Minor (sheet) No rill erosion (rill) No gully erosion (gully)

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: Yellow earth

Site Disturbance:

Vegetation:

Surface Coarse Fragments: 2-10%, fine gravelly, 2-6mm, subangular, Quartz

Profile Morphology

O1	0 - 0.02 m	Organic Layer; ; Loamy coarse sand; Moist; Non-plastic; Non-sticky; Sharp, Smooth change to -
O2	0.02 - 0.06 m	Organic Layer; ; Coarse sandy loam; Moist; Slightly plastic; Slightly sticky; Sharp, Smooth change to -
A1	0.06 - 0.18 m	Yellowish brown (10YR5/4-Moist); ; Coarse sandy clay; Single grain grade of structure; Earthy fabric; Moist; Very weak consistence; Very plastic; Moderately sticky; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 5.5 (Raupach); Gradual, Irregular change to -
B21	0.18 - 0.48 m	Yellow (10YR7/6-Moist); ; Coarse sandy clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Earthy fabric; Moist; Weak consistence; Moderately plastic; Moderately sticky; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; 2-10%, coarse gravelly, 20-60mm, subangular, dispersed, Adamellite, coarse fragments; Field pH 5.5 (Raupach); Clear, Irregular change to -
B22	0.48 - 0.72 m	Brownish yellow (10YR6/6-Moist); ; Massive grade of structure; Sandy (grains prominent) fabric; Firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; 10-20%, coarse gravelly, 20-60mm, subangular, dispersed, Adamellite, coarse fragments; Field pH 5.5 (Raupach);
C	0.72 - 0.83 m	Yellow (10YR7/6-Moist); Mottles, 2-10% , Distinct; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, undisturbed, Quartz, coarse fragments; 10-20%, coarse gravelly, 20-60mm, subangular, undisturbed, Adamellite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 5.5 (Raupach);

Morphological Notes

A1 Dispersive clay

Observation Notes

Pit below log-dam. Top 40cm probably colluvial with top 15cm being the most recent addition. Clay-rich B22 discontinuous. Planar voids are coated with clay and roots in B22 and C1 hors.

Site Notes

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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 - 0.6	2.8I 2.67H		8.97F	6.82	1.74	6.19	2.46G			
0.06 - 0.18	4.22I 4.26H		0.65F	0.69	0.39	1.05	0.92G			
0.18 - 0.48	4.16I 4.42H		0.45F	1.59	0.34	0.94	0.61G			
0.48 - 0.72	4.26I 4.67H		0.12F	3.89	0.38	0.48	0.29G			
0.72 - 0.83	4.14I 4.36H		0.14F	4.03	0.42	0.96	0.46G			

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 - 0.6		53.9A		125F	<0.01E			100				
0.06 - 0.18		0.21A		23F	<0.01E			14.8				
0.18 - 0.48		0.71A		15F	<0.01E			13.5				
0.48 - 0.72		0.27A		13F	<0.01E			3.2				
0.72 - 0.83		0.49A		20F	<0.01E			11				

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 - 0.6									
0.06 - 0.18									
0.18 - 0.48									
0.48 - 0.72									
0.72 - 0.83									

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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 (%)