

Project Name: YAMBULLA RESEARCH CATCHMENTS
Project Code: 1000196 **Site ID:** YAM_RC21 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	08/10/86	Elevation:	No Data
Map Ref.:	Sheet No. : 8823 1:25000	Rainfall:	No Data
Northing/Long.:	5868625 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	736100 Datum: AGD66	Drainage:	Imperfectly drained

Geology

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

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Crest	Relief:	0 metres
Elem. Type:	Hillcrest	Slope Category:	No Data
Slope:	3 %	Aspect:	315 degrees

Surface Soil Condition (dry):

Erosion: No sheet erosion (sheet) No rill erosion (rill) No gully erosion (gully)

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Dy5.41
		Great Soil Group:	Yellow podzolic soil

Site Disturbance:

Vegetation:

Surface Coarse Fragments: 10-20%, fine gravelly, 2-6mm, subangular, Quartz

Profile Morphology

O1	0 - 0.03 m	Organic Layer; ; Coarse sandy loam; Moist; Non-plastic; Non-sticky; Abrupt, Smooth change to -
A1	0.03 - 0.1 m	Very dark grey (10YR3/1-Moist); ; Coarse sandy loam; Weak grade of structure, 5-10 mm; Earthy fabric; Moist; Very weak consistence; Non-plastic; Slightly sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 3.5 (Raupach); Abrupt, Irregular change to -
A2e	0.1 - 0.15 m	Light grey (10YR7/1-Moist); ; Coarse sandy clay loam; Single grain grade of structure; Sandy (grains prominent) fabric; Moist; Loose consistence; Slightly plastic; Moderately sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 5.5 (Raupach); Gradual, Irregular change to -
B1	0.15 - 0.28 m	Pale brown (10YR6/3-Moist); ; Coarse sandy clay; Weak grade of structure, 10-20 mm; Earthy fabric; Moist; Weak consistence; Moderately plastic; Moderately sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 5.5 (Raupach); Gradual, Wavy change to -
B21t	0.28 - 0.45 m	Light yellowish brown (10YR6/4-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm; Rough-ped fabric; Moist; Firm consistence; Very plastic; Very sticky; 10-20%, fine gravelly, 2-6mm, subangular, undisturbed, Quartz, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Gradual, Wavy change to -
B22t	0.45 - 0.76 m	Pale yellow (2.5Y7/4-Moist); Mottles, 10-20% , Distinct; Coarse sandy clay loam; Strong grade of structure, 20-50 mm; Smooth-ped fabric; Moist; Firm consistence; Moderately plastic; Moderately sticky; 10-20%, fine gravelly, 2-6mm, subangular, undisturbed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, prominent; Field pH 5.5 (Raupach);
B3	0.76 - 0.93 m	Mottles, 10-20% , Prominent; Moderate grade of structure, 20-50 mm; Smooth-ped fabric; Firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, undisturbed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 4.5 (Raupach);

Morphological Notes

B1 coating type also organic-6

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Just below watershed boundary. A flat ridgeline with no granit outcropping. In-situ soil formation. Planar voids have on-clay
cutans and roots.

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0.03 - 0.1	3.11I 3.37H		1.69F	1.07	0.37	1.09	2.62G			
0.1 - 0.15	3.51I 4.06H		0.17F	0.63	0.16	0.26	3.27G			
0.15 - 0.28	3.77I 4.18H		0.12F	0.85	0.3	0.24	2.38G			
0.28 - 0.45	3.83I 4H		0.12F	1.24	0.51	1.2	2.36G			
0.45 - 0.75	3.9I 4.15H		0.08F	2.38	0.62	1.08	1.86G			

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
0.03 - 0.1		7.99A		51F	<0.01E			15.8	
0.1 - 0.15		1.92A		22F	<0.01E			12.7	
0.15 - 0.28		1.53A		24F	<0.01E			15.7	
0.28 - 0.45		1.18A		17F	<0.01E			14	
0.45 - 0.75		0.38A		12F	<0.01E			12	

[illegible]

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Laboratory Analyses Completed for this profile

15D1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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 (%)