

**Project Name:** YAMBULLA RESEARCH CATCHMENTS  
**Project Code:** 1000196      **Site ID:** YAM\_RC5      **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>	20/03/86	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>	Sheet No. : 8823    1:25000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	5866125 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	733875    Datum: AGD66	<b>Drainage:</b>	Moderately well drained

#### Geology

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

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Open depression (vale)	<b>Relief:</b>	0 metres
<b>Elem. Type:</b>	Drainage depression	<b>Slope Category:</b>	No Data
<b>Slope:</b>	8 %	<b>Aspect:</b>	180 degrees

#### Surface Soil Condition (dry):

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

#### 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>	Um2.21
		<b>Great Soil Group:</b>	Podzol

#### Site Disturbance:

#### Vegetation:

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

#### Profile Morphology

A1	0 - 0.22 m	Very dark brown (10YR2/2-Moist); ; Coarse sandy clay loam; Weak grade of structure, 2-5 mm, Granular; Earthy fabric; Moderately moist; Very weak consistence; Slightly plastic; Slightly sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 6 (Raupach); Sharp, Wavy change to -
A2e	0.22 - 0.37 m	Light brownish grey (10YR6/2-Moist); Light grey (10YR7/1-Dry); ; Coarse sandy clay loam; Massive grade of structure; Earthy fabric; Dry; Strong consistence; Slightly plastic; Slightly sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 6 (Raupach); Abrupt, Irregular change to -
B2	0.37 - 0.5 m	Yellowish brown (10YR5/4-Moist); Mottles, 10YR34, 20-50% , Distinct; Coarse sandy clay loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Dry; Very firm consistence; Moderately plastic; Moderately sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Few (2 - 10 %), Ferruginous, Coarse (6 - 20 mm), Nodules; , Organic (humified), Coarse (6 - 20 mm), Soft segregations; Field pH 5.5 (Raupach); Gradual, Irregular change to -
B31	0.5 - 0.75 m	Light olive brown (2.5Y5/4-Moist); ; Coarse sandy clay loam; Massive grade of structure; Earthy fabric; Dry; Firm consistence; Moderately plastic; Moderately sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 5.5 (Raupach); Clear, Wavy change to -
B32	0.75 - 0.85 m	Light olive brown (2.5Y5/4-Moist); ; Coarse sandy clay loam; Weak grade of structure, 10-20 mm, Platy; Smooth-ped fabric; Moderately moist; Strong consistence; Moderately plastic; Moderately sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 4.5 (Raupach);

#### Morphological Notes

B2	B2 hs
B32	Peds platy and prismatic.

#### Observation Notes

North-facing slope. Drainage depression filled with colluvium. Second profile found at 0.8m.

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**Site Notes**

Catch.3 311/313

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Ca	Exchangeable Cations	Na	Exchangeable	CEC	ECEC	ESP
m		dS/m		Mg	K	Acidity			%
						(+)/kg			
0 - 0.22	4.21I 4.82H		3.44F	2.43	0.34	0.84	0.14G		
0.22 - 0.3	3.73I 5H		0.34F	0.71	0.1	0.16	0.52G		
0.3 - 0.37	3.91I 4.68H		0.28F	1	0.19	0.66	0.86G		
0.37 - 0.5	4.08I 4.91H		0.2F	0.94	0.26	0.33	1.1G		
0.5 - 0.75	4.09I 5.12H		0.12F	0.89	0.28	0.17	0.88G		
0.75 - 0.85	3.92I 5.16H		0.08F	2.19	0.59	0.37	1.18G		

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 - 0.22		5.65A		58F	0.16E			4.2				
0.22 - 0.3		0.51A		13F	0.01E			6.7				
0.3 - 0.37		0.85A		13F	0.02E			8.6				
0.37 - 0.5		0.96A		20F	0.03E			19.9				
0.5 - 0.75		0.47A		16F	0.02E			12.1				
0.75 - 0.85		0.24A		15F	0.02E			9				

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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
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 (%)