

**Project Name:** Balonne-Maranoa Soil Survey and Soil Moisture Profiles  
**Project Code:** B-M **Site ID:** SM03 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

**Site Information**

<b>Desc. By:</b>	Gunn, RH	<b>Locality:</b>	Near Quandong camp.
<b>Date Desc.:</b>	02/08/71	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>	1:100000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	148.2249883	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	-28.21036802	<b>Drainage:</b>	No Data

**Geology**

<b>ExposureType:</b>	Auger boring	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	No Data

**Land Form**

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Mound	<b>Slope Category:</b>	Gently inclined
<b>Slope:</b>	%	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):** Surface crust

**Erosion:** Moderate (sheet)

**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>	Ug5.24
		<b>Great Soil Group:</b>	N/A

**Site Disturbance:**

**Vegetation:**

**Surface Coarse Fragments:**

**Profile Morphology**

A11	0 - 0.005 m	, 0-0% ; Light medium clay; Weak grade of structure, Platy; Earthy fabric; Weak consistence; Very few (0 - 2 %), Calcareous, , ; Soil matrix is Highly calcareous; Field pH 8.7 (pH meter);
A12	0.005 - 0.2 m	Brown (10YR4/3-Moist); , 0-0% ; Light medium clay; , Subangular blocky; Smooth-ped fabric; Firm consistence; Few (2 - 10 %), Calcareous, , ; Soil matrix is Highly calcareous; Field pH 8.7 (pH meter);
B21	0.2 - 0.4 m	Brown (10YR4/3-Moist); , 0-0% ; Medium heavy clay; , Subangular blocky; Smooth-ped fabric; Firm consistence; Few (2 - 10 %), Calcareous, , ; Soil matrix is Highly calcareous; Field pH 8.7 (pH meter);
B22	0.4 - 0.6 m	Brown (10YR4/3-Moist); , 0-0% ; Medium heavy clay; , Subangular blocky; Smooth-ped fabric; Firm consistence; Few (2 - 10 %), Calcareous, , ; Soil matrix is Moderately calcareous; Field pH 8.7 (pH meter);
B23	0.6 - 1 m	Brown (10YR4/3-Moist); , 0-0% ; Medium heavy clay; Massive grade of structure; Smooth-ped fabric; Firm consistence; Very few (0 - 2 %), Calcareous, , ; Soil matrix is Moderately calcareous; Field pH 8.7 (pH meter);

**Morphological Notes**

A11 Horizons put in by Neil McKenzie 11/04/2000.

**Observation Notes**

Erosion: moderate sheet with 75-100 mm removed. Microrelief: gilgaied, 75-100 mm. Parent material: Cainozai digouts. Mosaic of Gn2/Ug5. Firm fine sandy crust, with a few white carbonate concretions on the surface, 3-12 mm diameter.

**Site Notes**

Mapping symbol: CPXCS(g). Land system: pC. Land unit 53 (1610 km2). Midslope on gilgai mound. Vegetation: Cleared E. populnea, belah shrub woodland. Wilga.

**Project Name:** Balonne-Maranoa Soil Survey and Soil Moisture Profiles  
**Project Code:** B-M                      **Site ID:** SM03                      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

**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 - 0.2			28.2D	5.9	1.48	0.09		18.9L		0.48
0.4 - 0.6			16.8D	6.7	0.7	<0.05				

[illegible][illegible]

**Project Name:** Balonne-Maranoa Soil Survey and Soil Moisture Profiles  
**Project Code:** B-M **Site ID:** SM03 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

**Laboratory Analyses Completed for this profile**

15B2_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_CEC	CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_K	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_MG	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_NA	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
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
P3A1_CLOD	Bulk density g/cm <sup>3</sup> - Clods at 0.1 Bar moisture content (McIntyre & Stirk, 1954, Aust. J. Agric. Res. 5:291-6)
P3B1VL_15	15 BAR Moisture m <sup>3</sup> /m <sup>3</sup> - Volumetric using <2mm sample on pressure plate
P3B2VL_03	0.3 BAR Moisture m <sup>3</sup> /m <sup>3</sup> - Volumetric using disturbed sample on pressure plate