

**Project Name:** RR  
**Project Code:** RR      **Site ID:** B558      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**Site Information**

<b>Desc. By:</b>	G.D. Hubble	<b>Locality:</b>	
<b>Date Desc.:</b>	27/09/66	<b>Elevation:</b>	320 metres
<b>Map Ref.:</b>	Sheet No. : 9045 1:100000	<b>Rainfall:</b>	677
<b>Northing/Long.:</b>	150.516666666667	<b>Runoff:</b>	Slow
<b>Easting/Lat.:</b>	-26.4	<b>Drainage:</b>	Moderately well drained

**Geology**

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	Qs	<b>Substrate Material:</b>	Undisturbed soil core, 1.8 m deep, Unconsolidated material

**Land Form**

<b>Rel/Slope Class:</b>	Rolling rises 9-30m 10-32%	<b>Pattern Type:</b>	Rises
<b>Morph. Type:</b>	Upper-slope	<b>Relief:</b>	14 metres
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	Very gently sloped
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

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

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Magnesian Mottled-Hypnatic Yellow Sodosol		<b>Principal Profile Form:</b>	Dy5.43
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Solodized solonetz
All necessary analytical data are available.			

**Site Disturbance:** No effective disturbance other than grazing by hoofed animals

**Vegetation:** Low Strata - Heath shrub, 0.26-0.5m, Closed or dense. \*Species includes - None recorded  
Mid Strata - Tree, , Isolated plants. \*Species includes - None recorded  
Tall Strata - Tree, 12.01-20m, Closed or dense. \*Species includes - None Recorded

**Surface Coarse Fragments:** No surface coarse fragments

**Profile Morphology**

A1	0 - 0.1 m	Brown (7.5YR4/3-Moist); ; Loamy fine sand; Single grain grade of structure; Few (<1 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Dry; Loose consistence; Field pH 4.9 (pH meter);
A1	0.1 - 0.2 m	Brown (7.5YR4/3-Moist); ; Loamy fine sand; Single grain grade of structure; Few (<1 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Dry; Loose consistence; Field pH 5.4 (pH meter); Gradual change to -
A1	0.2 - 0.3 m	Strong brown (7.5YR5/5-Moist); ; Loamy fine sand; Single grain grade of structure; Few (<1 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Dry; Loose consistence; Field pH 5.7 (pH meter); Gradual change to -
A2	0.3 - 0.38 m	Strong brown (7.5YR5/5-Moist); ; Fine sand; Massive grade of structure; Few (<1 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Moist; Very weak consistence; Field pH 6 (pH meter);
A2	0.38 - 0.45 m	Very pale brown (10YR7/3-Moist); , 10YR64; Fine sand; Massive grade of structure; Few (<1 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Moist; Very weak consistence; Field pH 6.6 (pH meter);
A2	0.45 - 0.52 m	Very pale brown (10YR7/3-Moist); , 10YR64; Fine sand; Massive grade of structure; Few (<1 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Moist; Very weak consistence; Field pH 7.7 (pH meter); Abrupt change to -
B21	0.52 - 0.6 m	Greyish brown (10YR5/2-Moist); , 10YR56, 20-50% , 5-15mm, Distinct; , 2.5Y64, 20-50% , 5-15mm, Distinct; Fine sandy medium clay; Weak grade of structure, 50-100 mm, Columnar; 10-20 mm, Polyhedral; Moist; Firm consistence; Very few (0 - 2 %), Manganiferous, Coarse (6 - 20 mm), Soft segregations; Field pH 8.2 (pH meter); Gradual change to -
B22	0.6 - 0.76 m	Light yellowish brown (10YR6/4-Moist); , 10YR52, 20-50% , 5-15mm, Distinct; , 2.5Y61, 20-50% , 5-15mm, Distinct; Light medium clay; Moderate grade of structure, 20-50 mm, Polyhedral; 5-10 mm, Polyhedral; Moist; Firm consistence; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Field pH 8.4 (pH meter); Clear change to -
B23	0.76 - 0.9 m	Greyish brown (10YR5/2-Moist); , 10YR64, 20-50% , 5-15mm, Faint; , 20-50% , 5-15mm, Faint; Light medium clay; Strong grade of structure, 20-50 mm, Polyhedral; 5-10 mm, Polyhedral; Moderately moist; Very firm consistence; Field pH 8.6 (pH meter);

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B23	0.9 - 1 m	Greyish brown (10YR5/2-Moist); , 10YR64, 20-50% , 5-15mm, Faint; , 20-50% , 5-15mm, Faint; Light medium clay; Strong grade of structure, 20-50 mm, Polyhedral; 5-10 mm, Polyhedral; Moderately moist; Very firm consistence; Field pH 8.8 (pH meter); Clear change to -
B3	1 - 1.2 m	Light brownish grey (10YR6/2-Moist); , 10YR64, 10-20% , 5-15mm, Distinct; , 10YR82, 10-20% , 5-15mm, Distinct; Fine sandy clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Moist; Strong consistence; Very few (0 - 2 %), Manganiferous, , Soft segregations; Field pH 8.9 (pH meter);
B3	1.2 - 1.5 m	Light brownish grey (10YR6/2-Moist); , 10YR64, 10-20% , 5-15mm, Distinct; , 10YR82, 10-20% , 5-15mm, Distinct; Fine sandy clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Moist; Strong consistence; Very few (0 - 2 %), Manganiferous, , Soft segregations; Field pH 8.8 (pH meter);
B3	1.5 - 1.8 m	Light brownish grey (10YR6/2-Moist); , 10YR64, 10-20% , 5-15mm, Distinct; , 10YR82, 10-20% , 5-15mm, Distinct; Fine sandy loam; Weak grade of structure, 20-50 mm, Polyhedral; Moist; Firm consistence; Very few (0 - 2 %), Manganiferous, , Soft segregations; Clear change to -
C1	1.8 - 2.1 m	Brown (10YR5/3-Moist); , 10YR56, 10-20% , 30-mm, Distinct; , 10YR82, 10-20% , 30-mm, Distinct; Clayey fine sand; Massive grade of structure; Moist; Weak consistence;
C1	2.1 - 2.47 m	Brown (10YR5/3-Moist); , 10YR56, 10-20% , 30-mm, Distinct; , 10YR82, 10-20% , 30-mm, Distinct; Clayey fine sand; Massive grade of structure; Moist; Weak consistence; Clear change to -
C2	2.47 - 2.7 m	Grey (10YR6/1-Moist); , 10YR56, 10-20% , 30-mm, Prominent; , 7.5YR44, 10-20% , 30-mm, Prominent; Fine sand; Massive grade of structure; Moist; Very weak consistence;

**Morphological Notes**

**Observation Notes**

**Site Notes**

BARAKULA

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1

0.75 - 0.9

0.9 - 1

1 - 1.2

1.2 - 1.5

1.5 - 1.8

1.8 - 2.1

2.1 - 2.47

2.47 - 2.7

0.36F

0.21H

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**Laboratory Analyses Completed for this profile**

10A1	Total sulfur - X-ray fluorescence
15_NR_H	Hydrogen Cation - meq per 100g of soil - Not recorded
15A2_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
15A2_K	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_MG	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_NA	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
17A1	Total potassium - X-ray fluorescence
19B_NR	Calcium Carbonate (CaCO <sub>3</sub> ) - Not recorded
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1	Organic carbon - Walkley and Black
7_NR	Total nitrogen (%) - Not recorded
9A1	Total phosphorus - X-ray fluorescence
9B_9C	Available P (mg/kg) - Bicarbonate P - 0.5M NaHCO <sub>3</sub> extractable
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H <sub>2</sub> SO <sub>4</sub> (BSES)
P10_NR_C	Clay (%) - Not recorded
P10_NR_CS	Coarse sand (%) - Not recorded
P10_NR_FS	Fine sand (%) - Not recorded
P10_NR_Z	Silt (%) - Not recorded
P3A1	Bulk density - g/cm <sup>3</sup>
P3B3VLe004	0.04 BAR Moisture m <sup>3</sup> /m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on suction plate
P3B3VLe01	0.1 BAR Moisture m <sup>3</sup> /m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on suction plate
P3B3VLe03	0.3 BAR Moisture m <sup>3</sup> /m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on suction plate
P3B3VLe06	0.6 BAR Moisture m <sup>3</sup> /m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate
P3B3VLe15	15 BAR Moisture m <sup>3</sup> /m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate
P3B3VLe2	2 BAR Moisture m <sup>3</sup> /m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate
P3B3VLe7	7 BAR Moisture m <sup>3</sup> /m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate