RR **Project Name:**

Project Code: Site ID: **B558** Observation ID: 1 RR

Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: Date Desc.: G.D. Hubble Locality:

Elevation: 27/09/66 320 metres Sheet No.: 9045 1:100000 Map Ref.: Rainfall: 677 Northing/Long.: 150.516666666667 Runoff: Slow

Easting/Lat.: -26.4 Drainage: Moderately well drained

Geology

ExposureType: Conf. Sub. is Parent. Mat.: Soil pit No Data

Geol. Ref.: Qs **Substrate Material:** Undisturbed soil core, 1.8 m

deep,Unconsolidated material

Land Form

Rel/Slope Class: Rolling rises 9-30m 10-32% Pattern Type: Rises Morph. Type: Upper-slope Relief: 14 metres Elem. Type: Hillslope Slope Category: Very gently sloped

0 % Aspect: No Data Slope:

Surface Soil Condition (dry): Loose

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A Magnesic Mottled-Hypernatric Yellow Sodosol **Principal Profile Form:** Dy5.43

ASC Confidence: Great Soil Group: 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 100mm2) 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 100mm2) 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 100mm2) 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 100mm2) 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 100mm2) 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 100mm2) 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 -
В3	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);
В3	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);
В3	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

Project Name: RR
Project Code: RR Site ID: B5:
Agency Name: CSIRO Division of Soils (QLD) B558 Observation ID: 1

<u>Laboratory Test Results:</u>

Depth	рН	1:5 EC		hangeable Mg	Cations K	Na		hangeabl	le CEC	;	ECEC	ı	ESP
m		dS/m	Oa .	wg	K		ol (+)/ko						%
0 - 0.1	4.9A	0.03A		0.18	0.11	0.05	5	3D					
0.1 - 0.2	5.4A	0.03A		0.0	0.00	0.46	_	0.000					
0.2 - 0.3	5.7A	0.03A		0.6	0.03	0.12	2	0.83D					
0.3 - 0.38	6A	0.03A											
0.38 - 0.45 0.45 - 0.52	6.6A 7.7A	0.03A 0.03A		0.44	0.04	0.23		0D					
0.52 - 0.6	8.2A	0.03A		5	0.04	4.4		0D					
0.6 - 0.75	8.4A	0.164		3	0.07	7.7		OD					
0.75 - 0.9	8.6A	0.16		9	0.15	6		0D					
0.9 - 1	8.8A	0.184		6.9	0.14	5.1		0D					
1 - 1.2	8.9A	0.13A		4.4	0.09	3.9		0D					
1.2 - 1.5	8.8A	0.19A											
1.5 - 1.8	8.8A	0.21A	0.05B	8	0.26	5.9		0D					
1.8 - 2.1	8.7A	0.11A	١										
2.1 - 2.47	8.6A	0.13A	0.1B	3.2	0.11	2.7		0D					
2.47 - 2.7	8.8A	0.16A	\										
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	т	otal K	Bulk Densit		Particle CS	Size FS	Analysis Silt	
m	%	%	mg/kg	%	%		%	Mg/m3			%	•	·,
0 - 0.1		1.28A	17A 3.4B	0.008A	0.07	79B	0.12A	1.26		14C	72	4	6
0.1 - 0.2					0.0	3B		1.34					
0.2 - 0.3		0.35A		0.005A	0.02	22B	0.1A	1.44		14C		_	4
0.3 - 0.38		0.23A		0.005A	0.0	16B	0.09A			14C	74	6	3
0.38 - 0.45												_	
0.45 - 0.52				0.004A			0.1A	4.00		14C		_	4
0.52 - 0.6	0.10			0.005A			0.15A	1.83		11C	54	8	25
0.6 - 0.75 0.75 - 0.9	0.1C			0.008A	0.0′ 0.0′		0.31A	1.83		5C	46	17	31
0.73 - 0.9				0.006A			0.28A			4C	59		23
1 - 1.2				0.005A			0.3A			4C	70		15
1.2 - 1.5	0.1C			0.000	. 0.01		0.07			5C	59		19
1.5 - 1.8				0.006A	0.0	1B	0.24A			10C	53	14	21
1.8 - 2.1										12C	72	7	9
2.1 - 2.47										40C	48	0	12
2.47 - 2.7										60C	25	0	15
Depth	COLE Gravimetric/Volumetric Water Contents K sat K un								K unsa	t			
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 B	ar	5 Bar	15 Bar		n.		
m				g/g	g-m3/m	3				mm	'n	mm/h	
0 - 0.1				0.18F					0.05H				
0.1 - 0.2				0.15F					0.03H				
0.2 - 0.3				0.18F					0.03H				
0.3 - 0.38													
0.38 - 0.45													
0.45 - 0.52 0.52 - 0.6				0.29F					0.19H				
0.6 - 0.75				0.201					0.1011				

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0.36F

0.21H

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

Project Name: RR

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Agency Name: CSIRO Division of Soils (QLD)

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 (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for

soluble salts

15A2_K
15A2_MG
Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts

17A1 Total potassium - X-ray fluorescence 19B_NR Calcium Carbonate (CaCO3) - 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 NaHCO3 extractable

9G_BSES Available P (mg/kg) - Acid P - 0.005M H2SO4 (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/cm3

P3B3VLe004 0.04 BAR Moisture m3/m3 - Volumetric using undisturbed 60mm diameter and 34mm height core on

suction plate

P3B3VLe01 0.1 BAR Moisture m3/m3 - Volumetric using undisturbed 60mm diameter and 34mm height core on

suction plate

P3B3VLe03 0.3 BAR Moisture m3/m3 - Volumetric using undisturbed 60mm diameter and 34mm height core on

suction plate

P3B3VLe06 0.6 BAR Moisture m3/m3 - Volumetric using undisturbed 60mm diameter and 34mm height core on

pressure plate

P3B3VLe15 15 BAR Moisture m3/m3 - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate

pressure plac

P3B3VLe2 2 BAR Moisture m3/m3 - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate

oressure plate

P3B3VLe7 7 BAR Moisture m3/m3 - Volumetric using undisturbed 60mm diameter and 34mm height core on

pressure plate