Project Name: RR
Project Code: RR **Site ID:** B555 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.D. Hubble	**Locality:**	
Date Desc.:	07/09/66	**Elevation:**	305 metres
Map Ref.:	Sheet No. : 9044 1:100000	**Rainfall:**	690
Northing/Long.:	150.6	**Runoff:**	No runoff
Easting/Lat.:	-26.7166666666667	**Drainage:**	Poorly drained

Geology

ExposureType:	Soil pit	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	Qs	**Substrate Material:**	Undisturbed soil core, No Data

Land Form

Rel/Slope Class:	Gently undulating plains <9m 1-3%	**Pattern Type:**	Plain
Morph. Type:	No Data	**Relief:**	9 metres
Elem. Type:	Plain	**Slope Category:**	No Data
Slope:	0 %	**Aspect:**	No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Epihypersodic Epipedal Grey Vertosol
ASC Confidence:
All necessary analytical data are available.

Mapping Unit: N/A
Principal Profile Form: Ug5.24
Great Soil Group: Grey clay

Site Disturbance: Extensive clearing, for example poisoning, ringbarking

Vegetation:
Tall Strata - Tree, , Isolated plants. *Species includes - Acacia harpophylla, Brachychiton rupestre

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.1 m	Very dark grey (10YR3/1-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Angular blocky; 5-10 mm, Angular blocky; Wet; Very plastic; 0-2%, coarse gravelly, 20-60mm, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Field pH 7 (pH meter); Gradual change to -
A1	0.1 - 0.2 m	Dark grey (10YR4/1-Moist); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; 5-10 mm, Angular blocky; Wet; Very plastic; 0-2%, coarse gravelly, 20-60mm, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Field pH 7.7 (pH meter);
A1	0.2 - 0.3 m	Dark grey (10YR4/1-Moist); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; 5-10 mm, Angular blocky; Wet; Very plastic; 0-2%, coarse gravelly, 20-60mm, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Field pH 8.2 (pH meter); Gradual change to -
B2	0.3 - 0.45 m	Grey (10YR5/1-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; 5-10 mm, Angular blocky; Wet; Very plastic; 0-2%, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Field pH 7.8 (pH meter);
B2	0.45 - 0.6 m	Grey (10YR5/1-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; 5-10 mm, Angular blocky; Wet; Very plastic; 0-2%, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Field pH 6.1 (pH meter); Diffuse change to -
B2	0.6 - 0.9 m	Grey (10YR5/1-Moist); ; Medium heavy clay; 50-100 mm, Angular blocky; Moderate grade of structure, 10-20 mm, Angular blocky; Moist; Firm consistence; 0-2%, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, , Nodules; Field pH 6 (pH meter);
B2	0.9 - 1.2 m	Grey (10YR5/1-Moist); ; Medium heavy clay; Moderate grade of structure, 50-100 mm, Angular blocky; 10-20 mm, Angular blocky; Moist; Firm consistence; 0-2%, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, , Nodules; Field pH 6 (pH meter);
B2	1.2 - 1.5 m	Grey (10YR5/1-Moist); ; Medium heavy clay; Moderate grade of structure, 100-200 mm, Lenticular; 20-50 mm, Lenticular; Moist; Firm consistence; Very few (0 - 2 %), Manganiferous, , Nodules; Field pH 6.8 (pH meter);

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B2	1.5 - 1.8 m	Grey (10YR5/1-Moist); ; Medium heavy clay; Moderate grade of structure, 100-200 mm, Lenticular; 20-50 mm, Lenticular; Moist; Firm consistence; Very few (0 - 2 %), Manganiferous, , Nodules; Field pH 7.2 (pH meter);
B2	1.8 - 2.1 m	Grey (10YR5/1-Moist); ; Medium heavy clay; Moderate grade of structure, 100-200 mm, Lenticular; 20-50 mm, Lenticular; Moist; Firm consistence; Very few (0 - 2 %), Manganiferous, , Nodules;
B2	2.1 - 2.4 m	Grey (10YR6/1-Moist); ; Medium heavy clay; Moderate grade of structure, 100-200 mm, Lenticular; 20-50 mm, Lenticular; Moist; Firm consistence; Very few (0 - 2 %), Manganiferous, , Soft segregations;
B2	2.4 - 2.6 m	Grey (10YR6/1-Moist); ; Medium heavy clay; Moderate grade of structure, 100-200 mm, Lenticular; 20-50 mm, Lenticular; Moist; Firm consistence; Very few (0 - 2 %), Manganiferous, , Soft segregations;
B2	2.6 - 2.8 m	Grey (10YR6/1-Moist); ; Medium heavy clay; Moderate grade of structure, 100-200 mm, Lenticular; 20-50 mm, Lenticular; Moist; Firm consistence; Very few (0 - 2 %), Manganiferous, , Soft segregations; Diffuse change to -
B3	2.8 - 2.95 m	Grey (10YR6/1-Moist); ; Medium heavy clay; Moderate grade of structure, 100-200 mm, Lenticular; 20-50 mm, Lenticular; Moist; Firm consistence; 0-2%, Silcrete, coarse fragments;
B3	2.95 - 3.1 m	Grey (10YR6/1-Moist); ; Medium heavy clay; Moderate grade of structure, 100-200 mm, Lenticular; 20-50 mm, Lenticular; Moist; Firm consistence; 0-2%, Silcrete, coarse fragments; Clear change to -
C	3.1 - 3.3 m	;

Morphological Notes

C W(10YR92)with GB&PY patch';weat'd siltstone with clay veins

Observation Notes

(10YR 9/2) WITH GB & PY PATCHES; WEATHERED SILTSTONE WITH CLAY VEINS.

Site Notes

CHINCHILA

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations Ca	Mg	K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.1	7A	0.1A	17B	6.6	1.4	1.4	0.1D			
0.1 - 0.2	7.7A	0.14A								
0.2 - 0.3	8.2A	0.22A	15.1B	9.4	0.88	4.5	0D			
0.3 - 0.45	7.8A	0.49A	11.1B	9.4	0.83	5.6	0D			
0.45 - 0.6	6.1A	0.89A	7B	7.8	0.72	6.1	0.65D			
0.6 - 0.9	6A	1.24A	4.6B	7.3	0.61	5.6	3.8D			
0.9 - 1.2	6A	1.54A								
1.2 - 1.5	6.8A	1.68A	4.5B	12	0.96	8.8	0D			
1.5 - 1.8	7.2A	1.97A								
1.8 - 2.1	7.5A	1.97A								
2.1 - 2.4	7.1A	2.11A								
2.4 - 2.6	7.2A	1.97A								
2.6 - 2.8										
2.8 - 2.95	6.9A	1.95A								
2.95 - 3.1	6.8A	2.16A								
3.1 - 3.3	6.8A	2.11A								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		1.68A	50A 43B	0.031A	0.13B	0.44A	1.15	1	3C	26	6	60
0.1 - 0.2					0.088B		1.37					
0.2 - 0.3		0.81A		0.015A	0.071B	0.4A		1	3C	28	17	50
0.3 - 0.45		0.7A		0.014A	0.059B	0.4A	1.52	1	3C	29	17	49
0.45 - 0.6		0.52A		0.013A	0.044B	0.39A	1.54	1	3C	28	16	49
0.6 - 0.9				0.012A	0.04B	0.39A	1.59	1	3C	30	14	51
0.9 - 1.2												
1.2 - 1.5				0.012A	0.03B	0.4A		1	7C	26	14	52
1.5 - 1.8				0.014A		0.44A		1	2C	28	15	52
1.8 - 2.1												
2.1 - 2.4								1	2C	26	16	54
2.4 - 2.6												
2.6 - 2.8												
2.8 - 2.95												
2.95 - 3.1												
3.1 - 3.3												

Depth	COLE	Gravimetric/Volumetric Water Contents Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	K sat	K unsat
m				g/g - m3/m3					mm/h	mm/h
0 - 0.1				0.37F				0.22H		
0.1 - 0.2				0.39F				0.29H		
0.2 - 0.3										
0.3 - 0.45				0.38F				0.28H		
0.45 - 0.6				0.38F				0.27H		
0.6 - 0.9				0.39F				0.29H		
0.9 - 1.2										
1.2 - 1.5										

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1.5 - 1.8
1.8 - 2.1
2.1 - 2.4
2.4 - 2.6
2.6 - 2.8
2.8 - 2.95
2.95 - 3.1
3.1 - 3.3

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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 (Ca2+,Mg2+,Na+,K+) - 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
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
5_NR	Water soluble Chloride - Cl(%) - Not recordede
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_GRAV	Gravel (%)
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
P3B3VLe2	2 BAR Moisture m3/m3 - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate
P3B3VLe7	7 BAR Moisture m3/m3 - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate