Project Name: LBV
Project Code: LBV **Site ID:** B2 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.D. Hubble	**Locality:**	
Date Desc.:	01/10/48	**Elevation:**	18 metres
Map Ref.:	Sheet No. : 8358 1:100000	**Rainfall:**	800
Northing/Long.:	147.205	**Runoff:**	Slow
Easting/Lat.:	-19.7661111111111	**Drainage:**	Imperfectly drained

Geology

ExposureType:	Soil pit	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	Cza	**Substrate Material:**	Auger boring, 2.4 m deep,Porous, Unconsolidated material (unidentified)

Land Form

Rel/Slope Class:	Level plain <9m <1%	**Pattern Type:**	Alluvial plain
Morph. Type:	No Data	**Relief:**	No Data
Elem. Type:	Levee	**Slope Category:**	No Data
Slope:	0 %	**Aspect:**	No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:
Bleached-Mottled Eutrophic Red Chromosol
ASC Confidence:
All necessary analytical data are available.

Mapping Unit: N/A
Principal Profile Form: Dr3.42
Great Soil Group: Red podzolic soil

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

Vegetation: Low Strata - Tussock grass, , Sparse. *Species includes - None recorded
Tall Strata - Tree, 6.01-12m, Very sparse. *Species includes - None Recorded

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.13 m	Dark grey (10YR4/1-Moist); ; Sand; Massive grade of structure; Few (<1 per 100mm2) macropores, Dry; Very weak consistence; Field pH 6.5 (pH meter); Few, fine (1-2mm) roots; Diffuse change to -
A2	0.15 - 0.28 m	Light brownish grey (10YR6/2-Moist); ; Clayey sand; Massive grade of structure; Few (<1 per 100mm2) macropores, Dry; Very weak consistence; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Concretions; Field pH 6.5 (pH meter); Few, fine (1-2mm) roots; Diffuse change to -
B1	0.28 - 0.61 m	Pale brown (10YR6/3-Moist); ; Sandy clay loam; Massive grade of structure; Few (<1 per 100mm2) macropores, Dry; Weak consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Concretions; Field pH 6.1 (pH meter); Few, fine (1-2mm) roots; Clear change to -
B21	0.64 - 0.89 m	Reddish brown (2.5YR4/4-Moist); , 2.5Y72; Medium clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moderately moist; Firm consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Nodules; Field pH 6.2 (pH meter); Few, fine (1-2mm) roots; Diffuse change to -
B22	0.91 - 1.19 m	Reddish brown (2.5YR4/4-Moist); , 2.5Y63; Medium clay; Weak grade of structure, 20-50 mm, Angular blocky; Moderately moist; Firm consistence; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Concretions; Field pH 6.4 (pH meter); Few, fine (1-2mm) roots; Diffuse change to -
B23	1.22 - 1.6 m	Light brownish grey (2.5Y6/3-Moist); , 2.5YR44; , 10YR54; Light clay; Massive grade of structure; Moderately moist; Firm consistence; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Concretions; Field pH 7 (pH meter); Few, fine (1-2mm) roots; Diffuse change to -
B3	1.68 - 2.21 m	Grey (2.5Y6/0-Moist); , 2.5Y62; Light clay; Massive grade of structure; Moderately moist; Weak consistence; Field pH 7.2 (pH meter); Few, fine (1-2mm) roots;

Morphological Notes

Observation Notes

Site Notes

BURDEKIN VALLE

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m	Cmol (+)/kg							%
0 - 0.13	6.5A	0.01C	2.1K	0.7	0.32	0.06	2E		5.2B	
0.15 - 0.28	6.5A	0.007C								
0.28 - 0.61	6.1A	0.006C								
0.64 - 0.89	6.2A	0.006C	4.4K	4	0.35	0.36	4.7E		13.8B	
0.91 - 1.19	6.5A	0.007C								
1.22 - 1.6	7A	0.008C	4.4K	3.4	0.29	0.47	2.9E		11.4B	
1.68 - 2.21	7.2A	0.022C								

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 - 0.13		0.65E	21C	0.017F	0.047B				15C	64	12	8
0.15 - 0.28									14C	64	14	8
0.28 - 0.61												
0.64 - 0.89									7C	35	10	48
0.91 - 1.19												
1.22 - 1.6									6C	48	12	34
1.68 - 2.21												

Depth	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m		g/g - m3/m3							mm/h	mm/h
0 - 0.13										
0.15 - 0.28										
0.28 - 0.61										
0.64 - 0.89										
0.91 - 1.19										
1.22 - 1.6										
1.68 - 2.21										

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Laboratory Analyses Completed for this profile

15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
15G1_H	Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0
15J_H	Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3A_TSS	Electrical conductivity or soluble salts - Total soluble salts %
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6Z	Organic carbon (%) - Not recorded
7_NR	Total nitrogen (%) - Not recorded
9_NR	Available P (mg/kg) - Not recorded
9A_NR	Total element - P(%) - Not recorded
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