Project Name: LBV
Project Code: LBV **Site ID:** B72 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: G.D. Hubble
Date Desc.: 10/11/50
Map Ref.: Sheet No. : 8358 1:100000
Northing/Long.: 147.316666666667
Easting/Lat.: -19.8166666666667
Locality:
Elevation: 40 metres
Rainfall: 850
Runoff: Moderately rapid
Drainage: Imperfectly drained

Geology

ExposureType: Soil pit
Geol. Ref.: CZS
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Auger boring, 3 m deep,Porous, Unconsolidated material (unidentified)

Land Form

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

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:
Calcic Hypernatric Black Sodosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Dd1.33
Great Soil Group: Solodic soil

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

Vegetation: Low Strata - Tussock grass, , Mid-dense. *Species includes - Heteropogon contortus, Aristida species
Mid Strata - Shrub, , Very sparse. *Species includes - Atalaya hemiglauca
Tall Strata - Tree, 6.01-12m, Very sparse. *Species includes - Eucalyptus papuana, Grevillea striata

Surface Coarse Fragments: 0-2%, coarse gravelly, 20-60mm, angular, Metamorphic rock (unidentified)

Profile Morphology

A1	0 - 0.06 m	Pale brown (10YR6/3-Dry); ; Loam; Weak grade of structure, Platy; Massive grade of structure; Dry; Weak consistence; 2-10%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; Field pH 6.6 (pH meter); Sharp, Irregular change to -
B2	0.06 - 0.16 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Moderate grade of structure, 100-200 mm, Prismatic; Dry; Very strong consistence; 2-10%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, , Nodules; Field pH 7.5 (pH meter); Gradual change to -
B2	0.16 - 0.48 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Moderate grade of structure, 50-100 mm, Angular blocky; Moist; Very firm consistence; 2-10%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Very few (0 - 2 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9.1 (pH meter); Gradual change to -
B2	0.48 - 0.74 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moist; Very firm consistence; 2-10%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9.1 (pH meter); Diffuse change to -
B2	0.74 - 0.99 m	Greyish brown (2.5Y5/2-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moist; Very firm consistence; 0-2%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9.1 (pH meter); Diffuse change to -
B2	0.99 - 1.52 m	Pale yellow (2.5Y8/4-Moist); ; Heavy clay; Weak grade of structure, Angular blocky; Moist; Firm consistence; 0-2%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9.2 (pH meter);

Morphological Notes

Observation Notes

Site Notes

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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 - 0.06	6.6H	0.01B	3.9K	3.9	0.24	0.63	4.2D		12.9E	
0.06 - 0.16	7.5H	0.06B	7K	10.9	0.13	3.9	3.6D		25.5E	
0.16 - 0.48	9.1H	0.32B								
0.48 - 0.74	9.1H	0.46B	11K	16	0.19	11.2			38.4E	
0.74 - 0.99	9.1H	0.46B								
0.99 - 1.52	9.2H	0.39B								

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 - 0.06		0.67E	5C	0.007F	0.04B			4	32C	37	15	15
0.06 - 0.16					0.06B			3	21C	26	14	37
0.16 - 0.48												
0.48 - 0.74	1.7C							6	16C	17	8	53
0.74 - 0.99												
0.99 - 1.52	1.6C							1	10C	28	15	43

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 - 0.06									
0.06 - 0.16									
0.16 - 0.48									
0.48 - 0.74									
0.74 - 0.99									
0.99 - 1.52									

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Laboratory Analyses Completed for this profile

15_NR	Sum of Ex. cations + Ex. acidity - Not recorded
15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_H	Hydrogen Cation - 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
19B_NR	Calcium Carbonate (CaCO3) - Not recorded
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
5_NR	Water soluble Chloride - Cl(%) - Not recordede
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_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