Project Name: LBV
Project Code: LBV **Site ID:** B24 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: G.D. Hubble
Date Desc.: 18/10/48
Map Ref.: Sheet No. : 8458 1:100000
Northing/Long.: 147.514722222222
Easting/Lat.: -19.8033333333333
Locality:
Elevation: 15 metres
Rainfall: 800
Runoff: Very slow
Drainage: Poorly drained

Geology

ExposureType: Soil pit
Geol. Ref.: CZS
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Auger boring, 3.5 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): Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:
Epicalcareous Self-Mulching Black Vertosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Ug5.16
Great Soil Group: Black earth

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

Vegetation: Low Strata - Tussock grass, 1.01-3m, Closed or dense. *Species includes - Ophiurous exaltatus

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.13 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Strong grade of structure, 5-10 mm, Granular; Extremely coarse, (50 - 100) mm crack; Dry; Very strong consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 7.2 (pH meter); Clear change to -
B2	0.13 - 0.51 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Extremely coarse, (50 - 100) mm crack; Dry; Very strong consistence; 0-2%, fine gravelly, 2-6mm, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Very few (0 - 2 %), Calcareous, , Nodules; Field pH 8.4 (pH meter); Diffuse change to -
B2	0.51 - 1.09 m	Very dark grey (10YR3/1-Moist); , 2.5Y66; Heavy clay; Strong grade of structure, 100-200 mm, Lenticular; Extremely coarse, (50 - 100) mm crack; Moist; Very firm consistence; 0-2%, fine gravelly, 2-6mm, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Very few (0 - 2 %), Calcareous, , Nodules; Field pH 8.9 (pH meter); Diffuse change to -
B2	1.14 - 1.45 m	Dark grey (10YR4/1-Moist); , 2.5Y62; Heavy clay; Moderate grade of structure, 100-200 mm, Lenticular; Extremely coarse, (50 - 100) mm crack; Moist; Very firm consistence; 0-2%, fine gravelly, 2-6mm, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Common (10 - 20 %), Calcareous, , Nodules; Field pH 8.6 (pH meter); Diffuse change to -
B2	1.52 - 1.98 m	Light brownish grey (2.5Y6/2-Moist); , 2.5YR48; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moist; Very firm consistence; 10-20%, fine gravelly, 2-6mm, coarse fragments; Very few (0 - 2 %), Calcareous, , Nodules; Field pH 8.6 (pH meter);

Morphological Notes

Observation Notes

100MM WIDE CRACKS DOWN TO 1.2M

Site Notes

BURDEKIN VALLE

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.13	7.2H	0.02B	18K	17.4	0.22	0.64	4.4D		40.7E	
0.13 - 0.51	8.4H	0.04B	24.1K	33.3	0.33	0.62			58.4E	
0.51 - 1.09	8.9H	0.12B								
1.14 - 1.45	8.6H	0.4B	15.3K	15.3	0.3	4.1			52.9E	
1.52 - 1.98	8.6H	0.36B								

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		1.6E	3C	0.013F	0.09B				4C	16	14	60
0.13 - 0.51	0.19C				0.06B				4C	17	20	58
0.51 - 1.09	1.1C				0.04B							
1.14 - 1.45	1.3C								4C	15	22	60
1.52 - 1.98	0.68C								4C	18	16	59

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										
0.13 - 0.51										
0.51 - 1.09										
1.14 - 1.45										
1.52 - 1.98										

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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_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