Project Name: LBV
Project Code: LBV **Site ID:** B90 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: C.H. Thompson
Date Desc.: 15/11/50
Map Ref.: Sheet No. : 8357 1:100000
Northing/Long.: 147.4
Easting/Lat.: -20.0666666666667
Locality:
Elevation: 50 metres
Rainfall: 850
Runoff: No runoff
Drainage: Poorly drained

Geology

ExposureType: Soil pit
Geol. Ref.: PLZ
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Auger boring, 1.6 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:
Endocalcareous Epipedal 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, , Very sparse. *Species includes - None recorded

Tall Strata - Tree, 3.01-6m, Very sparse. *Species includes - None Recorded

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.08 m	Dark greyish brown (10YR4/2-Moist); ; Heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Dry; Strong consistence; 0-2%, fine gravelly, 2-6mm, subangular, Substrate material, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 6.2 (pH meter); Clear change to -
B2	0.08 - 0.38 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Dry; Strong consistence; 0-2%, fine gravelly, 2-6mm, subangular, Substrate material, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 7.1 (pH meter); Gradual change to -
B2	0.38 - 0.76 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Dry; Strong consistence; 0-2%, fine gravelly, 2-6mm, subangular, Substrate material, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 7.9 (pH meter); Gradual change to -
B2	0.76 - 1.17 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Moderate grade of structure, Lenticular; Moderate grade of structure, 20-50 mm, Angular blocky; Dry; Strong consistence; 0-2%, fine gravelly, 2-6mm, subangular, Substrate material, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.7 (pH meter); Gradual change to -
B3	1.27 - 1.57 m	Light brownish grey (2.5Y6/2-Moist); , 10YR53; Medium clay; Weak grade of structure, Lenticular; Moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, subangular, Substrate material, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.8 (pH meter); Gradual change to -
C	1.57 - 1.83 m	Light brownish grey (2.5Y6/3-Moist); ; Sandy clay loam; Massive grade of structure; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular, Substrate material, coarse fragments; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.4 (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 Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.08	6.2H	0.03B	14.1K	15.6	0.71	1.1	9.3D		40.8E	
0.08 - 0.38	7.1H	0.03B	23K	18	0.29	2.2	6.1D		49.6E	
0.38 - 0.76	7.9H	0.15B								
0.76 - 1.17	8.7H	0.23B	22.2K	11	0.31	3.8			37.3E	
1.27 - 1.57	8.8H	0.18B								
1.57 - 1.83	8.4H	0.12B								

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 - 0.08		1.64E	11C	0.018F	0.11B				8C	23	17	50
0.08 - 0.38									4C	14	13	67
0.38 - 0.76												
0.76 - 1.17	2.36C								5C	18	2	70
1.27 - 1.57												
1.57 - 1.83	0.06C								17C	39	16	27

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 - 0.08									
0.08 - 0.38									
0.38 - 0.76									
0.76 - 1.17									
1.27 - 1.57									
1.57 - 1.83									

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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