Project Name: DD
Project Code: DD **Site ID:** B243 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: G.D. Hubble
Date Desc.: 06/10/54
Map Ref.: Sheet No. : 9142 1:100000
Northing/Long.: 151.317777777778
Easting/Lat.: -27.7097222222222
Locality:
Elevation: No Data
Rainfall: 610
Runoff: Moderately rapid
Drainage: Moderately well drained

Geology

ExposureType: Soil pit
Geol. Ref.: Qpc
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Auger boring, 2 m deep,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:
Endocalcareous Self-Mulching Black Vertosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Ug5.15
Great Soil Group: Black earth

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

Vegetation:

Tall Strata - Tussock grass, 0.51-1m, Mid-dense. *Species includes - Dichanthium sericeum, Aristida species, Danthonia species

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

AB	0 - 0.08 m	Very dark brown (10YR2/2-Moist); ; Heavy clay; Strong grade of structure, 2-5 mm, Granular; Dry; Very weak consistence; 0-2%, fine gravelly, 2-6mm, coarse fragments; Field pH 7.2 (pH meter); Common, very fine (0-1mm) roots;
B2	0.08 - 0.3 m	Very dark brown (10YR2/2-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moderately moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, coarse fragments; Field pH 7.6 (pH meter); Common, very fine (0-1mm) roots;
B2	0.3 - 0.61 m	Very dark brown (10YR2/2-Moist); ; Heavy clay; Moderate grade of structure, Lenticular; Moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, coarse fragments; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.1 (pH meter); Few, very fine (0-1mm) roots;
B2	0.61 - 0.89 m	Very dark brown (10YR2/2-Moist); ; Heavy clay; Moderate grade of structure, Lenticular; Moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, coarse fragments; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.4 (pH meter);
B3	0.97 - 1.63 m	Brown (7.5YR4/2-Moist); , 10YR64; Silty medium clay; Weak grade of structure, Angular blocky; Moist; Weak consistence; Very few (0 - 2 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.8 (pH meter);
B3	1.73 - 2.59 m	Dark brown (7.5YR3/2-Moist); , 10YR64; Silty medium clay; Weak grade of structure, Angular blocky; Moist; Weak consistence; Very few (0 - 2 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.7 (pH meter);

Morphological Notes

Observation Notes

0-8CM GRANULAR GRADING TO FINE BLOCKY STRUCTURE

Site Notes

DARLING DOWNS

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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	7.2H	0.037B	28.5K	18.2	2.1	0.24	5.5D			
0.08 - 0.3	7.6H	0.03B								
0.3 - 0.61	8.1H	0.054B	28K	25.3	0.67	1.6	2.7D			
0.61 - 0.89	8.4H	0.104B								
0.97 - 1.63	8.8H	0.075B								
1.73 - 2.59	8.7H	0.055B								

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		2.18A	2483C	0.4F	0.19B		1.30	0.1	3C	13	25	53
0.08 - 0.3		1.31A										
0.3 - 0.61	0.02C	1.17A					1.30	0	1C	10	27	61
0.61 - 0.89		0.86A										
0.97 - 1.63	0.83C	0.09A		0.37F			1.40	1	0.2C	30	37	32
1.73 - 2.59												

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 - 0.08				0.5C				0.34C	
0.08 - 0.3									
0.3 - 0.61				0.53C				0.38C	
0.61 - 0.89									
0.97 - 1.63				0.46C				0.25C	
1.73 - 2.59									

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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_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
6A1	Organic carbon - Walkley and Black
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
P3A_NR	Bulk density - Not recorded
P3B_VL_01	0.1 BAR Moisture m3/m3 - Volumetric using suction plate
P3B_VL_15	15 BAR Moisture m3/m3 - Volumetric using pressure plate