Project Name: DD
Project Code: DD **Site ID:** B205 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: C.H. Thompson
Date Desc.: 01/10/53
Map Ref.: Sheet No. : 9242 1:100000
Northing/Long.: 151.755555555556
Easting/Lat.: -27.7480555555556
Locality:
Elevation: 442 metres
Rainfall: 610
Runoff: Moderately rapid
Drainage: Moderately well drained

Geology

ExposureType: Soil pit
Geol. Ref.: Tm
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Auger boring, 2 m deep,Unconsolidated material (unidentified)

Land Form

Rel/Slope Class: No Data
Morph. Type: No Data
Elem. Type: Pediment
Slope: 3.5 %
Pattern Type: Pediplain
Relief: No Data
Slope Category: No Data
Aspect: No Data

Surface Soil Condition (dry): Self-mulching, Loose

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 - None Recorded

Surface Coarse Fragments: 0-2%, cobbly, 60-200mm, ,

Profile Morphology

AB	0 - 0.08 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Strong grade of structure, 2-5 mm, Granular; Moderately moist; Very weak consistence; 2-10%, fine gravelly, 2-6mm, Basalt, coarse fragments; Field pH 7.4 (pH meter); Many, very fine (0-1mm) roots; Clear change to -
B2	0.08 - 0.41 m	Very dark brown (10YR2/2-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Moderately moist; Very firm consistence; 0-2%, medium gravelly, 6-20mm, Basalt, coarse fragments; Field pH 7.9 (pH meter); Common, very fine (0-1mm) roots; Gradual change
B2	0.41 - 0.69 m	Very dark brown (10YR2/2-Moist); ; Heavy clay; Strong grade of structure, Lenticular; Moist; Firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Gradual change to -
B2	0.69 - 0.86 m	Brown (7.5YR4/3-Moist); ; Heavy clay; Moderate grade of structure, Lenticular; Moist; Firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.6 (pH meter); Gradual change to -
B2	0.91 - 1.47 m	Dark reddish brown (5YR3/3-Moist); ; Heavy clay; Moderate grade of structure, Lenticular; Moist; Firm consistence; 0-2%, medium gravelly, 6-20mm, Basalt, coarse fragments; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.7 (pH meter); Diffuse change to -
B2	2.74 - 3.15 m	Dark reddish brown (5YR3/3-Moist); ; Heavy clay; Moderate grade of structure, Lenticular; Moist; Weak consistence; 0-2%, medium gravelly, 6-20mm, Basalt, coarse fragments; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.8 (pH meter);

Morphological Notes

Observation Notes

0-8CM GRANULAR STRUCTURE GRADING INTO BLOCKY UNITS

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	7.4H	0.05B	32.7K	29.2	1.9	1.2	7.4D			
0.08 - 0.41	7.9H	0.05B								
0.41 - 0.69	8.5H	0.13B	27.9K	31.7	0.67	5.5				
0.69 - 0.86	8.6H	0.29B								
0.91 - 1.47	8.7H	0.33B	18.6K	27	0.74	4.8				
2.74 - 3.15	8.8H	0.34B								

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		2.79A	788C	0.216F	0.19B		1.10	6	0.2C	8	17	68
0.08 - 0.41	0.05C	2.32A			0.14B		1.20	0.2	0.5C	9	17	70
0.41 - 0.69	0.14C	1.32A	1105C	0.212F			1.20	0.2	0.5C	9	20	68
0.69 - 0.86	2.05C	0.59A						0.2	0.7C	10	30	55
0.91 - 1.47	8.48C	0.18A						2	1C	9	14	69
2.74 - 3.15	5.06C	0.04A		0.156F				5	0.2C	10	3	81

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								0.42C	
0.08 - 0.41								0.41C	
0.41 - 0.69								0.46C	
0.69 - 0.86									
0.91 - 1.47									
2.74 - 3.15									

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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_15	15 BAR Moisture m3/m3 - Volumetric using pressure plate