

Project Name: DD
Project Code: DD **Site ID:** B224 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.D. Hubble	Locality:	
Date Desc.:	01/11/53	Elevation:	434 metres
Map Ref.:	Sheet No. : 9242 1:100000	Rainfall:	610
Northing/Long.:	151.568611111111	Runoff:	Slow
Easting/Lat.:	-27.7361111111111	Drainage:	Imperfectly drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	Jw	Substrate Material:	Auger boring, 1 m deep, Unconsolidated material (unidentified)

Land Form

Rel/Slope Class:	No Data	Pattern Type:	Rises
Morph. Type:	No Data	Relief:	8 metres
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	8.7 %	Aspect:	No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Hypocalcic Mottled-Hypernatric Brown Sodosol		Principal Profile Form:	Db2.33
ASC Confidence:		Great Soil Group:	Solodized solonetz
All necessary analytical data are available.			

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

Vegetation: Low Strata - Tussock grass, , . *Species includes - Sporobolus elongatus, Chloris species
Tall Strata - Tree, 6.01-12m, Mid-dense. *Species includes - Eucalyptus populnea, Acacia cambagei

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.1 m	Dark greyish brown (10YR4/2-Dry); ; Sandy loam; Massive grade of structure; Dry; Weak consistence; 2-10%, medium gravelly, 6-20mm, Shale, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 6.5 (pH meter); Clear change to -
A2	0.1 - 0.15 m	Light brownish grey (10YR6/2-Dry); ; Sandy loam; Massive grade of structure; Dry; Weak consistence; 10-20%, medium gravelly, 6-20mm, Shale, coarse fragments; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 6.5 (pH meter); Abrupt change to -
B21	0.15 - 0.23 m	Very dark greyish brown (10YR3/2-Moist); , 10YR54; Heavy clay; Strong grade of structure, 50-100 mm, Columnar; Moderately moist; Strong consistence; 10-20%, fine gravelly, 2-6mm, Shale, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 6.9 (pH meter); Gradual change to -
B22	0.25 - 0.43 m	Olive brown (2.5Y4/4-Moist); ; Heavy clay; Strong grade of structure, 50-100 mm, Columnar; Moist; Very firm consistence; 2-10%, fine gravelly, 2-6mm, Substrate material, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 8.8 (pH meter); Gradual change to -
B23	0.51 - 0.71 m	Brown (7.5YR4/4-Moist); ; Heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Moist; Very firm consistence; 2-10%, fine gravelly, 2-6mm, Substrate material, coarse fragments; Very few (0 - 2 %), Calcareous, , Nodules; Field pH 9.1 (pH meter); Diffuse change
B3	0.86 - 1.17 m	Light yellowish brown (2.5Y6/4-Moist); ; Heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, Substrate material, coarse fragments; Very few (0 - 2 %), Calcareous, , Nodules; Field pH 9.3 (pH meter);

Morphological Notes

Observation Notes

10-15CM A2 HORIZON HAS SPORADIC BLEACH

Site Notes

DARLING DOWNS

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Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Acidity		%
						Cmol	(+)/kg		
0 - 0.1	6.5H	0.02B	9.5K	2.5	0.6	0.35	5.9D		
0.1 - 0.15	6.5H	0.02B							
0.15 - 0.23	6.9H	0.12B	6.7K	13.6	0.38	6.8	6.5D		
0.25 - 0.43	8.8H	0.38B	4.6K	14.6	0.36	9.4			
0.51 - 0.71	9.1H	0.49B							
0.86 - 1.17	9.3H	0.36B							

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle		Size	Analysis	
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS %	Silt	Clay
0 - 0.1		2.22A	47C	0.05F	0.148B			3	17C	51	8	17
0.1 - 0.15		0.25A						28	19C	54	11	12
0.15 - 0.23		0.83A						26	12C	27	5	52
0.25 - 0.43	1.11C	0.45A						7	10C	25	5	58
0.51 - 0.71												
0.86 - 1.17	0.49C	0.07A						8	5C	25	22	47

[illegible]

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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 recorded
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