

Project Name: Regional
Project Code: REG **Site ID:** T215 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.G. Murtha	Locality:	On Bruce Highway 5.3KM south of rail overpass on south side of road between fence and road:
Date Desc.:	30/11/73	Elevation:	30 metres
Map Ref.:	Sheet No. : 8259 1:100000	Rainfall:	1140
Northing/Long.:	146.908333333333	Runoff:	Moderately rapid
Easting/Lat.:	-19.38	Drainage:	Poorly drained

Geology

ExposureType:	Undisturbed soil core	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	C-Pv	Substrate Material:	No Data

Land Form

Rel/Slope Class:	Gently undulating plains <9m 1-3%	Pattern Type:	Alluvial fan
Morph. Type:	Simple-slope	Relief:	6 metres
Elem. Type:	Fan	Slope Category:	Gently inclined
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Haplic Calcic Brown Chromosol		Principal Profile Form:	Db1.13
ASC Confidence:		Great Soil Group:	No suitable group
All necessary analytical data are available.			

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

Vegetation: Low Strata - Tussock grass, 0.51-1m, Mid-dense. *Species includes - None recorded
 Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus alba, Eucalyptus grandifolia, Eucalyptus polycarpa

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.08 m	Very dark greyish brown (10YR3/2-Moist); ; Clay loam; Weak grade of structure, 5-10 mm, Subangular blocky; Moist; Weak consistence; 0-2%, medium gravelly, 6-20mm, Gravel, coarse fragments; Clear change to -
B1	0.08 - 0.2 m	Dark brown (10YR3/3-Moist); ; Medium heavy clay; , Angular blocky; Strong grade of structure, 5-10 mm, Angular blocky; Dry; Very strong consistence; 0-2%, fine gravelly, 2-6mm, Gravel, coarse fragments; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2 mm), Concretions;
B2	0.2 - 0.3 m	Dark brown (10YR3/3-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Dry; Very strong consistence; 0-2%, fine gravelly, 2-6mm, Gravel, coarse fragments; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2 mm), Concretions;
B2	0.3 - 0.45 m	Brown (7.5YR4/2-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Dry; Very strong consistence; 0-2%, fine gravelly, 2-6mm, Gravel, coarse fragments; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2 mm), Concretions;
B2	0.45 - 0.6 m	Brown (7.5YR4/2-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Dry; Very strong consistence; 0-2%, fine gravelly, 2-6mm, Gravel, coarse fragments; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2 mm), Concretions; Clear change to -
B2	0.6 - 0.9 m	Dark reddish brown (5YR3/2-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Dry; Rigid consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules;
B2	0.9 - 1.2 m	Dark reddish brown (5YR3/2-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Dry; Rigid consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules;
	1.2 - 1.5 m	Strong brown (7.5YR3/7-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Rigid consistence; Very few (0 - 2 %), Ferromanganiferous, , Nodules; Very few (0 - 2 %), Calcareous, , Nodules;
	1.5 - 1.8 m	Strong brown (7.5YR3/7-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Rigid consistence; Very few (0 - 2 %), Ferromanganiferous, , Nodules; Very few (0 - 2 %), Calcareous, , Nodules;

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1.8 - 2.1 m	Brown (7.5YR4/2-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Rigid consistence; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Very few (0 - 2 %), Calcareous, Very coarse (20 - 60 mm), Nodules;
2.1 - 2.4 m	Brown (7.5YR4/2-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Rigid consistence; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Very few (0 - 2 %), Calcareous, Very coarse (20 - 60 mm), Nodules;

Morphological Notes

Observation Notes

150-180CM SOME COARSE SAND THROUGHOUT:120-180CM SOFT CA LINING VERITCALTRACKS:

Site Notes

TOWNSVILLE

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity		%
0 - 0.08	6.5A	<0.05A	9.5B	8	0.4	0.17			
0.08 - 0.2	6.4A	<0.05A	9.6B	8.4	0.1	0.35			
0.2 - 0.3	6.9A	<0.05A							
0.3 - 0.45	7.3A	<0.05A	10.8B	9.4	0.09	0.69			
0.45 - 0.6	8A	0.139A							
0.6 - 0.9	9.1A	0.25A	23.1B	9.7	<0.01	1.73			
0.9 - 1.2	9.3A	0.571A							
1.2 - 1.5	9.1A	0.77A							
1.5 - 1.8	9.1A	0.839A							
1.8 - 2.1	9A	0.919A							
2.1 - 2.4	9A	0.919A							

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
12_HF_CU	Total element - Cu(mg/kg) - HF/HClO ₄ Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO ₄ Digest
15A2_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_K	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_MG	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_NA	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
17A1	Total potassium - X-ray fluorescence
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H ₂ SO ₄ (BSES)
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P10_GRAV	Gravel (%)