

Project Name: Regional
Project Code: REG **Site ID:** T440 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	M.G. Cannon	Locality:	800M south west off Cardstone Road 18KM from Tully:
Date Desc.:	23/09/85	Elevation:	No Data
Map Ref.:	Sheet No. : 8062 1:100000	Rainfall:	3500
Northing/Long.:	145.795833333333	Runoff:	Moderately rapid
Easting/Lat.:	-17.9041666666667	Drainage:	Moderately well drained

Geology

Exposure Type:	Undisturbed soil core	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	Pgb	Substrate Material:	Granite

Land Form

Rel/Slope Class:	Undulating rises 9-30m 3-10%	Pattern Type:	Rises
Morph. Type:	No Data	Relief:	No Data
Elem. Type:	Hillcrest	Slope Category:	Very gently sloped
Slope:	2 %	Aspect:	No Data

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Melacic Dystrophic Red Dermosol	Principal Profile Form:	Uf6.2
ASC Confidence:	Great Soil Group:	No suitable group
All necessary analytical data are available.		

Site Disturbance: Limited clearing, for example selective logging

Vegetation:

Tall Strata - Tree, 12.01-20m, Isolated plants. *Species includes - Eucalyptus pellita

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Dark brown (7.5YR3/2-Moist); Brown (7.5YR5/2-Dry); ; Sandy medium clay; Strong grade of structure, 2-5 mm, Cast; Strong grade of structure, <2 mm, Granular; Smooth-ped fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Granite, coarse fragments; Common, medium (2-5mm) roots; Diffuse, Wavy change to -
A12	0.1 - 0.2 m	Dark brown (7.5YR3/2-Moist); Brown (7.5YR5/2-Dry); ; Sandy medium clay; Moderate grade of structure, 2-5 mm, Cast; Moderate grade of structure, <2 mm, Granular; Smooth-ped fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Granite, coarse fragments; Common, fine (1-2mm) roots; Gradual, Irregular change to -
A3	0.2 - 0.33 m	Strong brown (7.5YR5/6-Moist); ; 10YR42, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Sandy medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Massive grade of structure, Angular blocky; Earthy fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Granite, coarse fragments; Few, very fine (0-1mm) roots;
B1	0.33 - 0.45 m	Strong brown (7.5YR5/8-Moist); ; 2.5YR58, 2-10% , 5-15mm, Faint; , 2-10% , 5-15mm, Faint; Sandy medium clay; Massive grade of structure; Earthy fabric; Moist; Very weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Granite, coarse fragments; Few, very fine (0-1mm) roots; Gradual, Irregular change to -
B21	0.45 - 0.75 m	Red (2.5YR5/8-Moist); ; Sandy medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moderate grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Granite, coarse fragments; Few, very fine (0-1mm) roots; Gradual, Irregular change to -
B22	0.75 - 1.05 m	Red (2.5YR5/8-Moist); , 7.5YR68, 2-10% , 5-15mm, Distinct; , 7.5YR86, 2-10% , 5-15mm, Distinct; Medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moderate grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Granite, coarse fragments; Few, very fine (0-1mm) roots;
	1.05 - 1.25 m	Red (2.5YR5/8-Moist); , 7.5YR68, 2-10% , 5-15mm, Distinct; , 7.5YR86, 2-10% , 5-15mm, Distinct; Heavy clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moderate grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Granite, coarse fragments; Few, very fine (0-1mm) roots; Diffuse, Irregular change to -

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B23	1.25 - 1.55 m	Dark red (2.5YR3/6-Moist); , 7.5YR78, 20-50% , 15-30mm, Prominent; , 20-50% , 15-30mm, Prominent; Heavy clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moderate grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Granite, coarse fragments;
	1.55 - 1.8 m	Dark red (2.5YR3/6-Moist); , 7.5YR74, 20-50% , 15-30mm, Prominent; , 20-50% , 15-30mm, Prominent; Heavy clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moderate grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Granite, coarse fragments;

Morphological Notes

Observation Notes

Site Notes

CARDSTONE RD

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[illegible]

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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_FE	Total element - Fe(%) - HF/HClO ₄ Digest
12_HF_MN	Total element - Mn(mg/kg) - HF/HClO ₄ Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO ₄ Digest
13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15A2_CEC	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15D1_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) by compulsive exchange, no pretreatment for soluble
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15G_C	Exchange acidity (hydrogen and aluminium) - meq per 100g of soil - By 1M KCl exch. acidity by titration to pH 8.4
15J1	Effective CEC
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
6B3	Total organic carbon - high frequency induction furnace, infrared
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
9B_9C	Available P (mg/kg) - Bicarbonate P - 0.5M NaHCO ₃ extractable
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H ₂ SO ₄ (BSES)
9H1	Phosphate retention
P10_GRAV	Gravel (%)
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance