

Project Name: Regional
Project Code: REG **Site ID:** T401 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	M.D. Laffan	Locality:	Between Tolga and Rocky Creek:between dirt road and railway line:
Date Desc.:	12/10/84	Elevation:	No Data
Map Ref.:	Sheet No. : 7963 1:100000	Rainfall:	1300
Northing/Long.:	145.471666666667	Runoff:	No Data
Easting/Lat.:	-17.199166666667	Drainage:	Well drained

Geology

ExposureType:	Undisturbed soil core	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	CZA	Substrate Material:	Basalt

Land Form

Rel/Slope Class:	Gently undulating plains <9m 1-3%	Pattern Type:	No Data
Morph. Type:	No Data	Relief:	No Data
Elem. Type:	Plain	Slope Category:	No Data
Slope:	1 %	Aspect:	No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Haplic Mesotrophic Red Ferrosol		Principal Profile Form:	Gn3.11
ASC Confidence:		Great Soil Group:	Krasnozern
All necessary analytical data are available.			

Site Disturbance:

Vegetation:

Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - None Recorded

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.1 m	Very dusky red (2.5YR2/2-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Strong grade of structure, <2 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Weak consistence; Many, fine (1-2mm) roots; Gradual, Smooth change to -
AB	0.1 - 0.2 m	Dark reddish brown (2.5YR2/4-Moist); ; Light clay (Light); Moderate grade of structure, 10-20 mm, Angular blocky; Strong grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Weak consistence; Many, fine (1-2mm) roots; Gradual, Smooth change to -
B1	0.2 - 0.3 m	Dark reddish brown (2.5YR3/4-Moist); ; Light medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, <2 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Common, fine (1-2mm) roots; Gradual, Smooth change to -
B21	0.3 - 0.6 m	Dark reddish brown (2.5YR3/4-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, <2 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Common, fine (1-2mm) roots;
B21	0.6 - 0.9 m	Dark reddish brown (2.5YR3/4-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, <2 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Common, fine (1-2mm) roots;
B21	0.9 - 1.2 m	Dark reddish brown (2.5YR3/4-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, <2 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Common, fine (1-2mm) roots; Diffuse change to -
B22	1.2 - 1.5 m	Dark reddish brown (2.5YR2/4-Moist); ; Light clay; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Common (10 - 20 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Few, very fine (0-1mm) roots;

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B22	1.5 - 1.8 m	Dark reddish brown (2.5YR2/4-Moist); ; Light clay; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Common (10 - 20 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Few, very fine (0-1mm) roots; Diffuse change to -
B23	1.8 - 2.1 m	Dark reddish brown (2.5YR3/4-Moist); ; Light clay; Moderate grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Few, very fine (0-1mm) roots;
B23	2.1 - 2.4 m	Dark reddish brown (2.5YR3/4-Moist); ; Light clay; Moderate grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Few, very fine (0-1mm) roots;
B23	2.4 - 2.7 m	Dark reddish brown (2.5YR3/4-Moist); ; Light clay; Moderate grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Few, very fine (0-1mm) roots;
B23	2.7 - 2.95 m	Dark reddish brown (2.5YR3/4-Moist); ; Light clay; Moderate grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; Few, very fine (0-1mm) roots;

Morphological Notes

Observation Notes

VEGETATION SCLEROPHYLL WOODLANDS:PARENT MATERIAL IS VERY STRONGLY WEATHERED BASALT:

Site Notes

TOLGA-ROCKY CK

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Laboratory Test Results:

Depth m	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP	
		dS/m	Ca	Mg	K	Na Cmol (+)/kg				Acidity
0 - 0.1	4.9D 6.2A	0.035A	10.5H	3.55	0.97	0.09	0.07F	10.8A 24C	15.2F	0.83 0.38
0.1 - 0.2	6.4A	0.017A								
0.2 - 0.3	5.4D 6.4A	0.017A	2.99H	1.33	0.48	0.03	<0.05F	5.2A 8C	4.9F	0.58 0.38
0.3 - 0.6	6.4A	0.015A								
0.6 - 0.9	5.9D 6.4A	0.014A	2.18H	1.78	0.39	0.03	<0.05F	3.7A 5C	4.4F	0.81 0.60
0.9 - 1.2	5.9A	0.011A								
1.2 - 1.5	5.2D 5.9A	0.01A	2.04H	1.37	0.38	0.04	<0.05F	4.6A 6C	3.9F	0.87 0.67
1.5 - 1.8	5.8A	0.01A								
1.8 - 2.1	5.7A	0.01A								
2.1 - 2.4	5.3D 5.7A	0.011A	1.91H	1.46	0.19	0.04	<0.05F	3.2A 6C	3.7F	1.25 0.67
2.4 - 2.7	5.8A	0.01A								
2.7 - 2.95	5.8A	0.01A								

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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_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 salts
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
4C1	pH of 1:5 soil/1M potassium chloride extract - direct
6B3	Total organic carbon - high frequency induction furnace, infrared
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)
9H1	Phosphate retention
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 (%)