Project Name: **Regional**
Project Code: **REG** **Site ID:** **T391** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: M.D. Laffan
Date Desc.: 02/05/84
Map Ref.: Sheet No. : 8063 1:100000
Northing/Long.: 145.607777777778
Easting/Lat.: -17.2583333333333
Locality:
Elevation: 700 metres
Rainfall: 1400
Runoff: No Data
Drainage: Well drained

Geology

ExposureType: Existing vertical exposure
Geol. Ref.: P
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Metamorphic rock (unidentified)

Land Form

Rel/Slope Class: Rolling hills 90-300m 10-32%
Morph. Type: Lower-slope
Elem. Type: Hillslope
Slope: 25 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 45 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Acidic Dystrophic Red Dermosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Gn3.14
Great Soil Group: Red podzolic soil

Site Disturbance: Complete clearing. Pasture, native or improved, but never cultivated

Vegetation: Low Strata - Tussock grass, , . *Species includes - None recorded

Surface Coarse Fragments: 2-10%, fine gravelly, 2-6mm, angular, Sand

Profile Morphology

A1	0 - 0.1 m	Dark brown (10YR3/3-Moist); Mottles; Mottles; Clay loam, fine sandy; Moderate grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, angular, reoriented, Sand, coarse fragments; Common, fine (1-2mm) roots; Gradual change to -
A2	0.1 - 0.2 m	Brown (7.5YR4/4-Moist); Mottles; Mottles; Clay loam, fine sandy; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, angular, undisturbed, Sand, coarse fragments; Common, fine (1-2mm) roots;
A2	0.2 - 0.26 m	Brown (7.5YR4/4-Moist); Mottles; Mottles; Clay loam, fine sandy; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Weak consistence; 10-20%, fine gravelly, 2-6mm, angular, undisturbed, Sand, coarse fragments; Common, fine (1-2mm) roots; Gradual change to -
B21	0.26 - 0.3 m	Yellowish red (5YR5/6-Moist); Mottles; Mottles; Fine sandy medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, angular, undisturbed, Sand, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Few, fine (1-2mm) roots;
B21	0.3 - 0.5 m	Yellowish red (5YR5/6-Moist); Mottles; Mottles; Fine sandy medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, angular, undisturbed, Sand, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Few, fine (1-2mm) roots;
B21	0.5 - 0.6 m	Yellowish red (5YR5/6-Moist); Mottles; Mottles; Fine sandy medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, angular, undisturbed, Sand, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Few, fine (1-2mm) roots; Gradual change to -
B22	0.6 - 0.9 m	Red (2.5YR4/8-Moist); Mottles; Mottles; Light medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, angular, undisturbed, Sand, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Few, fine (1-2mm) roots;

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B22	0.9 - 1.2 m	Red (2.5YR4/8-Moist); Mottles; Mottles; Light medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, angular, undisturbed, Sand, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Few, fine (1-2mm) roots; Clear change to -
C	1.2 - 1.3 m	;

Morphological Notes

C Moderately to strongly weathered metamorphics:

Observation Notes

GRASS Spp. AND SCLEROPHYLL Spp:

Site Notes

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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 - 0.1	4.3D	0.038A	1.71H	2.38	0.23	0.09	0.42F	4.3A	4.8F	2.09
	5.6A							9C		1.00
0.1 - 0.2	4D	0.03A	0.49H	1.56	0.17	0.06	0.98F	2.8A	3.3F	2.14
	5.3A									
0.2 - 0.26	5.1A	0.028A								
0.26 - 0.3	5.1A	0.02A								
0.3 - 0.5	4.1D	0.011A	0.07H	0.11	0.08	0.03	1.59F	2A	1.9F	1.50
	5.2A							4C		0.75
0.5 - 0.6	5.3A	0.008A								
0.6 - 0.9	4.1D	0.007A	0.03H	0.2	0.05	0.03	1.77F	2.4A	2.1F	1.25
	5.4A							3C		1.00
0.9 - 1.2	5.4A	0.01A								

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 - 0.1		2.34C	7B	0.026A	0.16A	1.03A		0	22A	46	11	21
0.1 - 0.2		1.61C						8	23A	47	10	21
0.2 - 0.26												
0.26 - 0.3												
0.3 - 0.5		0.54C		0.018A		1.01A		6	21A	47	8	25
0.5 - 0.6								3	18A	48	10	24
0.6 - 0.9				0.021A		0.91A		2	14A	48	13	26
0.9 - 1.2								0	14A	53	13	21

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 - 0.1									
0.1 - 0.2									
0.2 - 0.26									
0.26 - 0.3									
0.3 - 0.5									
0.5 - 0.6									
0.6 - 0.9									
0.9 - 1.2									

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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/HClO4 Digest
12_HF_FE	Total element - Fe(%) - HF/HClO4 Digest
12_HF_MN	Total element - Mn(mg/kg) - HF/HClO4 Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO4 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 (Ca2+,Mg2+,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
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 H2SO4 (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 (%)