Project Name: **Regional**
Project Code: **REG** **Site ID:** **T221** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: G.G. Murtha
Locality: 2.1KM east along track from Rocky Springs Homestead:
Date Desc.: 06/12/73
Elevation: 61 metres
Map Ref.: Sheet No. : 8259 1:100000
Rainfall: 1140
Northing/Long.: 146.891666666667
Runoff: Rapid
Easting/Lat.: -19.3791666666667
Drainage: Well drained

Geology

ExposureType: Undisturbed soil core
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: C-Pv
Substrate Material: Undisturbed soil core, 1.2 m deep,Andesite

Land Form

Rel/Slope Class: Gently undulating rises 9-30m 1-3%
Pattern Type: Rises
Morph. Type: Mid-slope
Relief: 12 metres
Elem. Type: Hillslope
Slope Category: Gently inclined
Slope: 3 %
Aspect: No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:
Ferric Eutrophic Red Dermosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Dr2.22
Great Soil Group: Non-calcic brown soil

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 drepanophylla, Eucalyptus alba, Eucalyptus

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.1 m	Very dark grey (5YR3/1-Moist); ; Loam (Heavy); Weak grade of structure, 5-10 mm, Angular blocky; Dry; Very firm consistence; 0-2%, medium gravelly, 6-20mm, Gravel, coarse fragments; Gradual change to -
A2	0.1 - 0.16 m	Dark reddish grey (5YR4/2-Moist); ; Loam (Heavy); Weak grade of structure, 5-10 mm, Angular blocky; Moderately moist; Firm consistence; Many (20 - 50 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; Clear change to -
B21	0.16 - 0.2 m	Dark red (2.5YR3/6-Moist); ; Light medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moist; Very firm consistence; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules;
B21	0.2 - 0.3 m	Dark red (2.5YR3/6-Moist); ; Light medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moist; Very firm consistence; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules;
B22	0.3 - 0.6 m	Dark red (2.5YR3/6-Moist); ; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Moist; Very firm consistence; 0-2%, subrounded, Andesite, coarse fragments; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules;
B22	0.6 - 0.9 m	Yellowish red (5YR5/6-Moist); , 10YR63, 2-10% , 0-5mm, Faint; , 2-10% , 0-5mm, Faint; Medium heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moist; Very firm consistence;
BC	0.9 - 1.13 m	Yellowish red (5YR5/6-Moist); , 10YR62, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moist; Very firm consistence;
C	1.13 - 1.2 m	;
C	1.2 - 1.5 m	;

Morphological Notes

C Soft weathered parent material (113-150CM):

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16-30CM A HORIZON MATERIAL DOWN WORM CASTS:60-113CM W`D PARENT MATERIALINCREASING DOWN PROFILE:

Site Notes
ROCKY SPRINGS

Observation 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	6.4A	<0.05A	15.1B	5.4	1.2	0.07				
0.1 - 0.16	6.2A	<0.05A								
0.16 - 0.2	6.2A	<0.05A								
0.2 - 0.3	6.3A	<0.05A	9B	3.1	0.47	0.06				
0.3 - 0.6	6.7A	<0.05A								
0.6 - 0.9	7A	<0.05A	10.9B	7.1	0.09	0.16				
0.9 - 1.13	7.2A	<0.05A								
1.13 - 1.2	7.3A	<0.05A								
1.2 - 1.5	7.2A	<0.05A								

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		3.75D	153B	0.13A	0.21A	1.38A		0	15A	27	27	31
0.1 - 0.16								0	13A	29	26	31
0.16 - 0.2								0	16A	28	24	32
0.2 - 0.3			12B	0.058A		1.46A		0	14A	27	23	37
0.3 - 0.6												
0.6 - 0.9								4	6A	12	18	63
0.9 - 1.13												
1.13 - 1.2			652B	0.082A		1.13A						
1.2 - 1.5												

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 - 0.16									
0.16 - 0.2									
0.2 - 0.3									
0.3 - 0.6									
0.6 - 0.9									
0.9 - 1.13									
1.13 - 1.2									
1.2 - 1.5									

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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_ZN	Total element - Zn(mg/kg) - HF/HClO4 Digest
15A2_CA	Exchangeable bases (Ca2+,Mg2+,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 H2SO4 (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 (%)