Project Name: **Regional**
Project Code: **REG** **Site ID:** **T111** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: R.F. Isbell
Locality: Turnoff on Harvey's Range Road to old Beef Road 12.8KM south of Inghamhighway:
Date Desc.: 12/02/70
Elevation: No Data
Map Ref.: Sheet No. : 8259 1:100000
Rainfall: 1115
Northing/Long.: 146.55
Runoff: Moderately rapid
Easting/Lat.: -19.3166666666667
Drainage: Well drained

Geology

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

Land Form

Rel/Slope Class: Gently undulating plains <9m 1-3%
Pattern Type: Plain
Morph. Type: No Data
Relief: No Data
Elem. Type: Prior stream
Slope Category: No Data
Slope: 0 %
Aspect: No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Melanic Eutrophic Red Kandosol
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: 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, 12.01-20m, Sparse. *Species includes - Eucalyptus alba, Eucalyptus polycarpa, Eucalyptus tessellaris

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.05 m	Dark reddish brown (5YR2/2-Moist); ; Sandy loam (Heavy); Weak grade of structure, 2-5 mm, Granular; Weak consistence; 2-10%, fine gravelly, 2-6mm, Charcoal, coarse fragments; Common, fine (1-2mm) roots; Clear change to -
A12	0.05 - 0.1 m	Dark reddish brown (5YR3/2-Moist); ; Sandy loam (Heavy); Weak grade of structure, 10-20 mm, Angular blocky; Weak consistence; Common, fine (1-2mm) roots; Gradual change to -
A2	0.1 - 0.2 m	Dark reddish brown (5YR3/2-Moist); ; Sandy loam (Heavy); Weak grade of structure, 10-20 mm, Angular blocky; Earthy fabric; Weak consistence; 2-10%, fine gravelly, 2-6mm, Charcoal, coarse fragments; Few, fine (1-2mm) roots; Gradual change to -
B1	0.2 - 0.3 m	Dark reddish brown (2.5YR3/4-Moist); ; Sandy clay loam; Weak grade of structure, 10-20 mm, Angular blocky; Earthy fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Weak consistence; Few, fine (1-2mm) roots; Gradual change to -
B21	0.3 - 0.45 m	Dark red (2.5YR3/6-Moist); ; Light clay; Weak grade of structure, 20-50 mm, Angular blocky; Earthy fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Weak consistence; Few, fine (1-2mm) roots; Gradual change to -
B22	0.45 - 0.6 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Weak consistence; Few, fine (1-2mm) roots; Gradual change to -
B23	0.6 - 0.75 m	Dark red (2.5YR3/6-Moist); ; Sandy medium clay; Weak grade of structure, 20-50 mm, Angular blocky; Earthy fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Weak consistence; Gradual change to -
BC	0.75 - 0.9 m	Dark red (2.5YR3/7-Moist); ; Sandy clay loam (Light); Weak grade of structure, 20-50 mm, Angular blocky; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Weak consistence; 2-10%, medium gravelly, 6-20mm, Gravel, coarse fragments; Gradual change to -
BC	0.9 - 1.13 m	Dark red (2.5YR3/8-Moist); ; Clay loam, sandy (Heavy); Massive grade of structure; Few (<1 per 100mm2) Fine (1-2mm) macropores, Very weak consistence; Gradual change to -

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C	1.13 - 1.2 m	Yellowish red (5YR4/8-Moist); ; Clay loam, sandy; Massive grade of structure; Very weak consistence;
C	1.2 - 1.5 m	Yellowish red (5YR4/8-Moist); ; Clay loam, sandy (Light); Single grain grade of structure; Loose consistence; 2-10%, medium gravelly, 6-20mm, rounded, Gravel, coarse fragments;
C	1.5 - 1.8 m	Yellowish red (5YR4/8-Moist); ; Clay loam, sandy (Light); Single grain grade of structure; Loose consistence; 2-10%, medium gravelly, 6-20mm, rounded, Gravel, coarse fragments;

Morphological Notes

Observation Notes

Site Notes

HARVEY'S RANGE

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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 - 0.05	6.4A	0.044A	8.1B	1.9	0.36	0.18		12.2C		1.48
0.05 - 0.1	6.4A	0.035A								
0.1 - 0.2	6.5A	0.026A	3.5B	1	0.17	0.14		6.3C		2.22
0.2 - 0.3	6.4A	0.077A								
0.3 - 0.45	6.4A	0.026A	3.7B	1.6	0.27	0.14		6.6C		2.12
0.45 - 0.6	6.3A	0.035A								
0.6 - 0.75	6.2A	0.032A	4.6B	2	0.33	0.19		7.2C		2.64
0.75 - 0.9	6A	0.029A								
0.9 - 1.13	6.3A	0.026A								
1.13 - 1.2	6.3A	0.077A								
1.2 - 1.5	6.4A	0.023A								
1.5 - 1.8	6.5A	0.023A								

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 - 0.05		2.02D	11A 28B	0.041A	0.13A	2.9A			44A	26	11	13
0.05 - 0.1												
0.1 - 0.2		0.59D	6B	0.022A	0.05A	3A			42A	29	16	17
0.2 - 0.3												
0.3 - 0.45			5B	0.019A		2.7A			35A	23	11	33
0.45 - 0.6												
0.6 - 0.75									31A	21	14	35
0.75 - 0.9												
0.9 - 1.13												
1.13 - 1.2												
1.2 - 1.5												
1.5 - 1.8												

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 - 0.05									
0.05 - 0.1									
0.1 - 0.2									
0.2 - 0.3									
0.3 - 0.45									
0.45 - 0.6									
0.6 - 0.75									
0.75 - 0.9									
0.9 - 1.13									
1.13 - 1.2									
1.2 - 1.5									
1.5 - 1.8									

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
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
15D1_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
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
9B_9C	Available P (mg/kg) - Bicarbonate P - 0.5M NaHCO3 extractable
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