Project Name: **Regional**
Project Code: **REG** **Site ID:** **T432** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: M.G. Cannon
Locality: 1.5KM north of Davidson Road approx 13KM from Euramo turnoff on bank ofTully River:
Date Desc.: 23/09/85
Elevation: No Data
Map Ref.: Sheet No. : 8062 1:100000
Rainfall: 3500
Northing/Long.: 145.8375
Runoff: Rapid
Easting/Lat.: -17.9666666666667
Drainage: Well drained

Geology

ExposureType: Undisturbed soil core
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: Qa
Substrate Material: Unconsolidated material (unidentified)

Land Form

Rel/Slope Class: Level plain <9m <1%
Pattern Type: Alluvial plain
Morph. Type: Ridge
Relief: No Data
Elem. Type: Levee
Slope Category: Level
Slope: <1 %
Aspect: No Data

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:
Acidic Regolithic Orthic Tenosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Um6.42
Great Soil Group: No suitable group

Site Disturbance: No effective disturbance. Natural

Vegetation:

Tall Strata - Tree, 12.01-20m, Closed or dense. *Species includes - None Recorded

Surface Coarse Fragments:

Profile Morphology

A	0 - 0.1 m	Brown (10YR4/3-Moist); ; Fine sandy clay loam (Light); Moderate grade of structure, 2-5 mm, Cast; Smooth-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Weak consistence; Common, fine (1-2mm) roots;
	0.1 - 0.2 m	Brown (10YR4/3-Moist); ; Fine sandy clay loam (Light); Weak grade of structure, 2-5 mm, Cast; Smooth-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Weak consistence; Few, very fine (0-1mm) roots; Diffuse change to -
B	0.2 - 0.4 m	Yellowish brown (10YR5/6-Moist); ; Fine sandy loam (Heavy); Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very weak consistence; Few, very fine (0-1mm) roots;
	0.4 - 0.63 m	Yellowish brown (10YR5/6-Moist); ; Fine sandy loam (Heavy); Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Very weak consistence; Few, very fine (0-1mm) roots;
2B2	0.63 - 0.9 m	Yellowish brown (10YR5/4-Moist); ; Fine sandy clay loam; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Firm consistence; Few, very fine (0-1mm) roots;
	0.9 - 1.13 m	Yellowish brown (10YR5/4-Moist); ; Sandy light clay (Light); Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Firm consistence; Few, very fine (0-1mm) roots;
	1.13 - 1.5 m	Yellowish brown (10YR5/4-Moist); ; Sandy light clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Firm consistence; Few, very fine (0-1mm) roots;
	1.5 - 1.85 m	Yellowish brown (10YR5/4-Moist); ; Sandy light clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Firm consistence; Few, very fine (0-1mm) roots;

Morphological Notes

Observation Notes

Site Notes

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W OF TULLY

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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	4.89A	0.146A	1.71H	1.68	0.17	0.11	1.06F	5A 8C	4.7F	2.20 1.38
0.1 - 0.2	4.86A	0.093A	0.62H	1.14	0.06	0.11	3.79F	2.8A 6C	5.7F	3.93 1.83
0.2 - 0.4	5.07A	0.036A	0.16H	0.73	0.03	0.1	2.06F	3.2A 4C	3.1F	3.13 2.50
0.4 - 0.63	5.28A	0.018A								
0.63 - 0.9	5.52A	0.016A	0.88H	1.09	0.02	0.1	1.23F	2.6A 5C	3.3F	3.85 2.00
0.9 - 1.13	5.5A	0.019A								
1.13 - 1.5	5.45A	0.16A	0.87H	2.17	0.03	0.12	0.85F	4.4A 6C	4F	2.73 2.00
1.5 - 1.85	5.68A	0.139A								

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		1.96C	13A 14B	0.048A	0.16A	2.66A		0	4D	54	20	23
0.1 - 0.2		1.4C	8A 10B	0.041A	0.1A	2.69A		0	4D	57	17	22
0.2 - 0.4		0.71C	3A 5B		0.05A			0	7D	62	14	17
0.4 - 0.63								0	6D	62	16	16
0.63 - 0.9		0.49C	5A 8B	0.039A		2.52A		0	2D	56	22	20
0.9 - 1.13								0	1D	44	27	28
1.13 - 1.5		0.45C	8A 9B	0.042A		2.38A		0	1D	46	25	28
1.5 - 1.85								0	3D	46	25	26

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 - 0.4										
0.4 - 0.63										
0.63 - 0.9										
0.9 - 1.13										
1.13 - 1.5										
1.5 - 1.85										

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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_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 (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
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 NaHCO3 extractable
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H2SO4 (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