Project Name: **Regional**
Project Code: **REG** **Site ID:** **T357** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By: M.G. Cannon
Date Desc.: 05/12/85
Map Ref.: Sheet No. : 8061 1:100000
Northing/Long.: 145.933333333333
Easting/Lat.: -18.0583333333333
Locality:
Elevation: No Data
Rainfall: 4000
Runoff: No runoff
Drainage: Very poorly drained

Geology

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

Land Form

Rel/Slope Class: Level plain <9m <1%
Morph. Type: Closed Depression
Elem. Type: Swamp
Slope: <1 %
Pattern Type: Flood plain
Relief: No Data
Slope Category: Level
Aspect: No Data

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:
Humose Dermosolic Redoxic Hydrosol
ASC Confidence:
Analytical data are incomplete but reasonable confidence.
Mapping Unit: N/A
Principal Profile Form: Dg4.11
Great Soil Group: Humic gley

Site Disturbance: No effective disturbance. Natural

Vegetation:

Tall Strata - Tree, 12.01-20m, Mid-dense. *Species includes - Tristania sauveolens

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Black (10YR2/1-Moist); ; Loam (Sapric); Massive grade of structure; Weak grade of structure, Cast; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moist; Very weak consistence; Common, fine (1-2mm) roots;
	0.1 - 0.2 m	Black (10YR2/1-Moist); ; Loam (Sapric); Massive grade of structure; Weak grade of structure, Cast; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Very weak consistence; Common, fine (1-2mm) roots; Diffuse change to -
A12	0.2 - 0.3 m	Black (10YR2/1-Moist); ; Loam (Sapric); Weak grade of structure, 10-20 mm, Prismatic; Weak grade of structure, Cast; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moist; Very weak consistence; Common, fine (1-2mm) roots;
	0.3 - 0.42 m	Black (10YR2/1-Moist); ; Loam (Sapric); Weak grade of structure, 20-50 mm, Prismatic; Weak grade of structure, Cast; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Very weak consistence; Common, fine (1-2mm) roots; Clear change to -
B1	0.42 - 0.5 m	Dark greyish brown (10YR4/2-Moist); , 10YR68, 0-2% , 0-5mm, Faint; , 0-2% , 0-5mm, Faint; Silty light clay; Moderate grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moist; Firm consistence; Few, very fine (0-1mm) roots; Sharp change to -
B21	0.5 - 0.77 m	Light brownish grey (10YR6/2-Moist); , 10YR68, 20-50% , 5-15mm, Distinct; , 20-50% , 5-15mm, Distinct; Silty medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moist; Firm consistence; Few, very fine (0-1mm) roots; Diffuse change to -
B22	0.77 - 1.13 m	Light grey (10YR7/2-Moist); , 7.5YR58, 2-10% , 5-15mm, Distinct; , 2-10% , 5-15mm, Distinct; Silty medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moist; Firm consistence; Few, very fine (0-1mm) roots; Clear change to -
D1	1.13 - 1.38 m	Greyish brown (10YR5/2-Moist); , 10YR41, 10-20% , 15-30mm, Distinct; , 10-20% , 15-30mm, Distinct; Sandy medium clay; Massive grade of structure; Earthy fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moist; Very weak consistence; Few, very fine (0-1mm) roots; Gradual change to -

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D2	1.38 - 1.5 m	Light grey (10YR7/2-Moist); , 10YR68, 0-2% , 0-5mm, Faint; , 0-2% , 0-5mm, Faint; Clay loam, sandy; Massive grade of structure; Earthy fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moist; Very weak consistence; Clear change to -
D3	1.5 - 1.86 m	Light grey (2.5Y7/1-Moist); , 10YR68, 20-50% , 5-15mm, Prominent; , 2.5YR46, 20-50% , 5-15mm, Prominent; Heavy clay; Strong grade of structure, 10-20 mm, Columnar; Strong grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moist; Firm consistence;

Morphological Notes

Observation Notes

Site Notes

LOWER 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	4.3A	0.213A	0.19H	0.31	0.2	0.1	5.1F	3.7A	5.9F	2.70
								33C		0.30
0.1 - 0.2	4.33A	0.089A								
0.2 - 0.3	4.72A	0.039A	0.07H	0.12	0.12	0.05	4.31F	3.3A	4.7F	1.52
								20C		0.25
0.3 - 0.42	4.85A	0.035A								
0.42 - 0.5	4.96A	0.022A	0.04H	0.32	0.12	0.09	5.42F	3.3A	6F	2.73
								13C		0.69
0.5 - 0.77	4.92A	0.027A	0.07H	0.43	0.12	0.11	4.43F	2.5A	5.2F	4.40
								9C		1.22
0.77 - 1.13	4.89A	0.027A								
1.13 - 1.38	5.06A	0.017A	<0.02H	0.43	0.1	0.05	3.13F	2.7A	3.7F	1.85
								5C		1.00
1.38 - 1.5	5.24A	0.009A								
1.5 - 1.86	5.25A	0.016A	<0.02H	1.2	0.11	0.09	2.66F	1.9A	4.1F	4.74
								5C		1.80

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			13A		0.04A			1	18A	12	34	37
			43B									
0.1 - 0.2								1	8A	14	38	40
0.2 - 0.3			7A		0.02A			0	7A	12	39	43
			32B									
0.3 - 0.42								0	6A	11	36	47
0.42 - 0.5					0.02A			0	5A	12	37	46
0.5 - 0.77			4A		0.02A			0	5A	15	37	43
			7B									
0.77 - 1.13								0	13A	11	20	56
1.13 - 1.38								0	31A	21	17	31
1.38 - 1.5								1	41A	31	14	14
1.5 - 1.86			4A					0	29A	15	9	46
			6B									

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 - 0.3									
0.3 - 0.42									
0.42 - 0.5									
0.5 - 0.77									
0.77 - 1.13									
1.13 - 1.38									
1.38 - 1.5									
1.5 - 1.86									

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Laboratory Analyses Completed for this profile

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
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
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_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 (%)