

Project Name: Regional
Project Code: REG **Site ID:** T434 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	M.G. Cannon	Locality:	1.5KM up Murray River from Bruce Highway:
Date Desc.:	23/09/85	Elevation:	No Data
Map Ref.:	Sheet No. : 8061 1:100000	Rainfall:	3800
Northing/Long.:	145.916666666667	Runoff:	Very slow
Easting/Lat.:	-18.0194444444445	Drainage:	Very poorly 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:	Level plain <9m <1%	Pattern Type:	Flood plain
Morph. Type:	Flat	Relief:	No Data
Elem. Type:	Backplain	Slope Category:	Level
Slope:	<1 %	Aspect:	No Data

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Humose Dermosolic Redoxic Hydrosol		Principal Profile Form:	Dy5.11
ASC Confidence:		Great Soil Group:	Humic gley

Analytical data are incomplete but reasonable confidence.

Site Disturbance: No effective disturbance. Natural

Vegetation: Low Strata - Sedge, 0.51-1m, Sparse. *Species includes - None recorded

Surface Coarse Fragments:

Profile Morphology

A1h	0 - 0.1 m	Black (10YR2/1-Moist); ; Loam (Sapric); Weak grade of structure, 2-5 mm, Cast; Earthy fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moist; Very weak consistence; Common, fine (1-2mm) roots; Diffuse change to -
	0.1 - 0.22 m	Black (10YR2/1-Moist); ; Loam (Sapric); Weak grade of structure, 5-10 mm, Prismatic; Weak grade of structure, 2-5 mm, Angular blocky; Earthy fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Very weak consistence; Common, fine (1-2mm) roots;
A2h	0.22 - 0.4 m	Very dark grey (10YR3/1-Moist); ; Loam (Heavy); Moderate grade of structure, 10-20 mm, Prismatic; Moderate grade of structure, 5-10 mm, Angular blocky; Earthy fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moist; Very weak consistence; Common, fine (1-2mm) roots; Diffuse change to -
A3	0.4 - 0.62 m	Very dark grey (10YR3/1-Moist); ; Silty clay loam; Moderate grade of structure, 10-20 mm, Prismatic; Moderate grade of structure, 5-10 mm, Angular blocky; Earthy fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moist; Very weak consistence; Few, fine (1-2mm) roots; Diffuse, Irregular change to -
AB	0.62 - 0.83 m	Dark grey (10YR4/1-Moist); ; Silty clay loam (Heavy); Moderate grade of structure, 10-20 mm, Prismatic; Moderate grade of structure, 5-10 mm, Angular blocky; Earthy fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moist; Very weak consistence; Few, fine (1-2mm) roots; Clear, Irregular change to -
B21	0.83 - 1.14 m	Light brownish grey (10YR6/2-Moist); , 10YR73, 10-20% , 5-15mm, Distinct; , 10YR78, 10-20% , 5-15mm, Distinct; Medium heavy clay; Strong grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moist; Firm consistence; Few, fine (1-2mm) roots; Gradual, Wavy change to -
B22	1.14 - 1.28 m	Grey (10YR6/1-Moist); , 10YR78, 10-20% , 5-15mm, Distinct; , 10YR72, 10-20% , 5-15mm, Distinct; Medium heavy clay; Strong grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moist; Firm consistence; Few, very fine (0-1mm) roots; Abrupt, Wavy change to -

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B23	1.28 - 1.29 m	Light grey (10YR7/2-Moist); , 10YR78, 10-20% , 5-15mm, Prominent; , 10-20% , 5-15mm, Prominent; Medium heavy clay; Strong grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Wet; Firm consistence; Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
2A	1.29 - 1.57 m	Dark grey (10YR4/1-Moist); , 10YR78, 10-20% , 5-15mm, Prominent; , 10-20% , 5-15mm, Prominent; Medium heavy clay; Strong grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 10-20 mm, Angular blocky; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Wet; Firm consistence; Few, very fine (0-1mm) roots; Gradual, Wavy change to -
2B	1.57 - 1.95 m	Light grey (2.5Y7/1-Moist); , 10YR78, 2-10% , 5-15mm, Prominent; , 2-10% , 5-15mm, Prominent; Light clay; Massive grade of structure; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Wet; Weak consistence; 0-2%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments;

Morphological Notes

Observation Notes

128-129CM NOT SAMPLED:

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.1	4.4A	0.339A	0.99H	0.46	0.58	0.51	4.15F	4.4A 34C	6.7F	11.59 1.50
0.1 - 0.22	4.5A	0.14A								
0.22 - 0.4	4.96A	0.015A								
0.4 - 0.62	5.28A	0.026A	0.09H	0.03	0.04	0.14	1.73F	2.5A 20C	2F	5.60 0.70
0.62 - 0.83	5.2A	0.02A								
0.83 - 1.14	5.28A	0.024A	0.79H	0.74	0.09	0.33	5.39F	0.5A 11C	7.3F	66.00 3.00
1.14 - 1.28	5.4A	0.019A								
1.29 - 1.57	5.4A	0.022A	0.91H	1.08	0.04	0.22	4.21F	4.8A 13C	6.5F	4.58 1.69
1.57 - 1.95	5.49A	0.022A	0.45H	0.81	0.06	0.12	1.08F	2.4A 3C	2.5F	5.00 4.00

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		10.3C	24A 91B	0.144A	0.78A	0.76A		0	1D	6	40	53
0.1 - 0.22								0	5D	16	36	43
0.22 - 0.4								0	17D	8	24	51
0.4 - 0.62		4.52C	121B	0.105A	0.24A	0.71A		0	8D	3	25	64
0.62 - 0.83								0	1D	2	28	69
0.83 - 1.14		0.91C	2A 7B	0.017A	0.05A	0.9A		0	1D	1	31	67
1.14 - 1.28								0	1D	2	25	71
1.29 - 1.57		2.12C	38B	0.017A	0.07A	0.6A		0	6D	11	25	58
1.57 - 1.95		0.24C	7A 9B	0.009A		0.19A		8	29D	22	12	37

[illegible]

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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/HClO ₄ Digest
12_HF_FE	Total element - Fe(%) - HF/HClO ₄ Digest
12_HF_MN	Total element - Mn(mg/kg) - HF/HClO ₄ Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO ₄ 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 (Ca ²⁺ ,Mg ²⁺ ,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 NaHCO ₃ extractable
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H ₂ SO ₄ (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