

**Project Name:** Regional  
**Project Code:** REG **Site ID:** T377 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**Site Information**

<b>Desc. By:</b>	M.G. Cannon	<b>Locality:</b>	
<b>Date Desc.:</b>	23/11/83	<b>Elevation:</b>	30 metres
<b>Map Ref.:</b>	Sheet No. : 8061 1:100000	<b>Rainfall:</b>	2250
<b>Northing/Long.:</b>	145.970833333333	<b>Runoff:</b>	Very slow
<b>Easting/Lat.:</b>	-18.2458333333333	<b>Drainage:</b>	Moderately well drained

**Geology**

<b>ExposureType:</b>	Undisturbed soil core	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	QA	<b>Substrate Material:</b>	Unconsolidated material (unidentified)

**Land Form**

<b>Rel/Slope Class:</b>	Level plain <9m <1%	<b>Pattern Type:</b>	Alluvial plain
<b>Morph. Type:</b>	Flat	<b>Relief:</b>	5 metres
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	Level
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Mesotrophic Dermosolic Redoxic Hydrosol		<b>Principal Profile Form:</b>	Uf6.41
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	No suitable group
All necessary analytical data are available.			

**Site Disturbance:** No effective disturbance. Natural

**Vegetation:** Low Strata - Tussock grass, 0.51-1m, Mid-dense. \*Species includes - Imperata cylindrica  
Tall Strata - Tree, 20.01-35m, Mid-dense. \*Species includes - None Recorded

**Surface Coarse Fragments:** No surface coarse fragments

**Profile Morphology**

A1	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Light brownish grey (10YR6/2-Dry); Mottles, 0-0% ; Mottles, 0-0% ; Silty medium clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Very weak consistence; Many, fine (1-2mm) roots;
A1	0.1 - 0.12 m	Very dark greyish brown (10YR3/2-Moist); Light brownish grey (10YR6/2-Dry); Mottles, 0-0% ; Mottles, 0-0% ; Silty medium clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Very weak consistence; Many, fine (1-2mm) roots; Clear, Smooth change to -
B21	0.12 - 0.2 m	Brownish yellow (10YR6/8-Moist); Mottles, 10YR62, 20-50% , 5-15mm, Distinct; Mottles, 20-50% , 5-15mm, Distinct; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Weak consistence; Many, fine (1-2mm) roots;
B21	0.2 - 0.25 m	Brownish yellow (10YR6/8-Moist); Mottles, 10YR62, 20-50% , 5-15mm, Distinct; Mottles, 20-50% , 5-15mm, Distinct; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Weak consistence; Many, fine (1-2mm) roots; Clear, Smooth change to -
B22	0.25 - 0.3 m	Light brownish grey (10YR6/2-Moist); Mottles, 10YR68, 10-20% , 5-15mm, Distinct; Mottles, 10-20% , 5-15mm, Distinct; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Many, fine (1-2mm) roots;
B22	0.3 - 0.5 m	Light brownish grey (10YR6/2-Moist); Mottles, 10YR68, 10-20% , 5-15mm, Distinct; Mottles, 10-20% , 5-15mm, Distinct; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Many, fine (1-2mm) roots; Diffuse, Wavy change to -
B23/2b	0.5 - 0.6 m	Light brownish grey (10YR6/2-Moist); White (10YR8/1-Dry); Mottles, 10YR68, 10-20% , 5-15mm, Distinct; Mottles, 10-20% , 5-15mm, Distinct; Medium heavy clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Common (10 - 20 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Common, fine (1-2mm) roots;

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B23/2b	0.6 - 0.9 m	Light brownish grey (10YR6/2-Moist); White (10YR8/1-Dry); Mottles, 10YR68, 10-20% , 5-15mm, Distinct; Mottles, 10-20% , 5-15mm, Distinct; Medium heavy clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Common (10 - 20 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Common, fine (1-2mm) roots; Diffuse, Wavy change to -
B24/2b	0.9 - 1.2 m	Light brownish grey (10YR6/2-Moist); Mottles, 10YR68, 10-20% , 0-5mm, Distinct; Mottles, 10-20% , 0-5mm, Distinct; Heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Very firm consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Soft segregations; Common, fine (1-2mm) roots; Diffuse, Wavy change to -
B25/2b	1.2 - 1.5 m	Light brownish grey (10YR6/2-Moist); Mottles, 10YR68, 20-50% , 15-30mm, Prominent; Mottles, 20-50% , 15-30mm, Prominent; Heavy clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Strong consistence; Common (10 - 20 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Few, fine (1-2mm) roots;
B25/2b	1.5 - 1.8 m	Light brownish grey (10YR6/2-Moist); Mottles, 10YR68, 20-50% , 15-30mm, Prominent; Mottles, 20-50% , 15-30mm, Prominent; Heavy clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Strong consistence; Common (10 - 20 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Few, fine (1-2mm) roots;
B25/2b	1.8 - 2 m	Light brownish grey (10YR6/2-Moist); Mottles, 10YR68, 20-50% , 15-30mm, Prominent; Mottles, 20-50% , 15-30mm, Prominent; Heavy clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Strong consistence; Common (10 - 20 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Few, fine (1-2mm) roots;

**Morphological Notes**

**Observation Notes**

VERTICAL MOTTLING IN 12-20CM DEPTH:MN DOMINATE IN Y MOTTLE:

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[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 <sub>4</sub> Digest
12_HF_FE	Total element - Fe(%) - HF/HClO <sub>4</sub> Digest
12_HF_MN	Total element - Mn(mg/kg) - HF/HClO <sub>4</sub> Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO <sub>4</sub> Digest
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 <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) 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
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
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H <sub>2</sub> SO <sub>4</sub> (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 (%)