

**Project Name:** Regional  
**Project Code:** REG **Site ID:** T365 **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>	60 metres
<b>Map Ref.:</b>	Sheet No. : 8061 1:100000	<b>Rainfall:</b>	2250
<b>Northing/Long.:</b>	145.9875	<b>Runoff:</b>	Moderately rapid
<b>Easting/Lat.:</b>	-18.2555555555556	<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>	Undulating rises 9-30m 3-10%	<b>Pattern Type:</b>	Low hills
<b>Morph. Type:</b>	Crest	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	Gently inclined
<b>Slope:</b>	6 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Melanic Magnesic Yellow Chromosol		<b>Principal Profile Form:</b>	Dy4.21
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Yellow podzolic soil
All necessary analytical data are available.			

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

**Vegetation:** Low Strata - Tussock grass, 0.51-1m, Mid-dense. \*Species includes - None recorded  
Mid Strata - Tree, 3.01-6m, Very sparse. \*Species includes - Casuarina littoralis  
Tall Strata - Tree, 20.01-35m, Mid-dense. \*Species includes - Eucalyptus acmenoides, Syncarpia glomulifera

**Surface Coarse Fragments:** 2-10%, cobbly, 60-200mm, subangular, Sand

**Profile Morphology**

A11	0 - 0.1 m	Very dark grey (10YR3/1-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clay loam, sandy (Heavy); Strong grade of structure, 2-5 mm, Cast; Smooth-ped fabric; Dry; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments;
A11	0.1 - 0.2 m	Very dark grey (10YR3/1-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clay loam, sandy (Heavy); Strong grade of structure, 2-5 mm, Cast; Smooth-ped fabric; Dry; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Diffuse, Wavy change to -
A12	0.2 - 0.3 m	Dark greyish brown (10YR4/2-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clay loam, coarse sandy; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Dry; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments;
A12	0.3 - 0.35 m	Dark greyish brown (10YR4/2-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clay loam, coarse sandy; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Dry; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Gradual, Wavy change to -
A2	0.35 - 0.45 m	Brown (10YR5/3-Moist); Light yellowish brown (10YR6/4-Dry); Mottles, 0-0% ; Mottles, 0-0% ; Coarse sandy clay loam; Weak grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; 20-50%, medium gravelly, 6-20mm, subangular, dispersed, Quartz, coarse fragments; Clear, Smooth change to -
B2	0.45 - 0.6 m	Reddish yellow (7.5YR6/6-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Medium clay; Strong grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Diffuse, Wavy change to -
BC	0.6 - 0.75 m	Yellow (10YR7/8-Moist); Mottles, 5YR68, 20-50% , 5-15mm, Distinct; Mottles, 20-50% , 5-15mm, Distinct; Medium heavy clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Sand, coarse fragments; Diffuse, Wavy change to -
C	0.75 - 0.9 m	Yellow (10YR7/6-Moist); Mottles, 10R36, 20-50% , 15-30mm, Prominent; Mottles, 20-50% , 15-30mm, Prominent; Medium heavy clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Sand, coarse fragments;

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C      0.9 - 0.98 m      Yellow (10YR7/6-Moist); Mottles, 10R36, 20-50% , 15-30mm, Prominent; Mottles, 20-50% , 15-30mm, Prominent; Medium heavy clay; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Sand, coarse fragments;

**Morphological Notes**

**Observation Notes**

AT 15CM IS A 300MM COARSE EARTHY GLAEBULE:A2 POSSIBLE B1:98CM MAX ON GRAVEL

**Site Notes**

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity		%
0 - 0.1	5.8A	0.03A	0.92H	0.82	0.2	0.05	1.29F	2.9A 16.4C	1.72 0.30
0.1 - 0.2	5.9A	0.025A							
0.2 - 0.3	6.1A	0.019A	0.28H	1.11	0.09	0.03	0.88F	2.3A 8.7C	1.30 0.34
0.3 - 0.35	6A	0.017A							
0.35 - 0.45	6.1A	0.013A							
0.45 - 0.6	5.7A	0.02A	0.03H	1.4	0.07	0.02	1.04F	3A 4.6C	0.67 0.43
0.6 - 0.75	5.8A	0.016A							
0.75 - 0.9	5.9A	0.013A	<0.02H	2.77	0.09	0.03	0.56F	3.5A 4.8C	0.86 0.63
0.9 - 0.98	6.1A	0.013A							

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		5.2C	7B	0.013A	0.15A	0.11A		10	48A	18	9	25
0.1 - 0.2								7	37A	22	11	30
0.2 - 0.3		2.34C	4B	0.008A	0.07A	0.11A		12	42A	21	10	27
0.3 - 0.35								13	46A	21	9	25
0.35 - 0.45								18	49A	20	8	23
0.45 - 0.6		0.47C	3B	0.004A		0.13A		11	36A	10	9	45
0.6 - 0.75				0.002A		0.16A		12	24A	6	14	56
0.75 - 0.9		0.11C	2B					13	25A	4	16	54
0.9 - 0.98								13	28A	4	16	51

[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
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 <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) by compulsive exchange, no pretreatment for soluble salts
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
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 (%)