

Project Name: Regional
Project Code: REG **Site ID:** T363 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	M.G. Cannon	Locality:	
Date Desc.:	24/11/83	Elevation:	20 metres
Map Ref.:	Sheet No. : 8161 1:100000	Rainfall:	2250
Northing/Long.:	146.129166666667	Runoff:	Slow
Easting/Lat.:	-18.452777777778	Drainage:	Moderately 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:	Plain
Morph. Type:	Flat	Relief:	No Data
Elem. Type:	Fan	Slope Category:	Level
Slope:	1 %	Aspect:	No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Haplic Mesotrophic Yellow Kandosol		Principal Profile Form:	Gn2.21
ASC Confidence:		Great Soil Group:	Yellow earth

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation:

Mid Strata - Tree, 6.01-12m, Isolated clumps. *Species includes - Casuarina littoralis

Tall Strata - Tree, 12.01-20m, Sparse. *Species includes - Eucalyptus alba

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.04 m	Very dark grey (10YR3/1-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Sandy clay loam (Light); Massive grade of structure; Earthy fabric; Moderately moist; Very weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Common, very fine (0-1mm) roots; Clear, Wavy change to -
A3	0.04 - 0.1 m	Brown (10YR4/3-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Common, very fine (0-1mm) roots;
A3	0.1 - 0.15 m	Brown (10YR4/3-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Common, very fine (0-1mm) roots; Gradual, Wavy change to -
B1	0.15 - 0.2 m	Yellowish brown (10YR5/4-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Few, medium (2-5mm) roots;
B1	0.2 - 0.27 m	Yellowish brown (10YR5/4-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Few, medium (2-5mm) roots; Gradual, Wavy change to -
B2	0.27 - 0.3 m	Olive yellow (2.5Y6/6-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Sandy medium clay (Light); Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular, dispersed, Quartz, coarse fragments; Few, medium (2-5mm) roots;
B2	0.3 - 0.6 m	Olive yellow (2.5Y6/6-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Sandy medium clay (Light); Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular, dispersed, Quartz, coarse fragments; Few, medium (2-5mm) roots;

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B2	0.6 - 0.65 m	Olive yellow (2.5Y6/6-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Sandy medium clay (Light); Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular, dispersed, Quartz, coarse fragments; Few, medium (2-5mm) roots; Clear, Wavy change to -
D1	0.65 - 0.9 m	Light yellowish brown (2.5Y6/4-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clayey sand; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Few, fine (1-2mm) roots; Clear, Wavy change to -
D2	0.9 - 1.2 m	Light yellowish brown (2.5Y6/4-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clayey coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; Moderately moist; Loose consistence; 50-90%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Few, very fine (0-1mm) roots;
D2	1.2 - 1.5 m	Light yellowish brown (2.5Y6/4-Moist); Mottles, 0-0% ; Mottles, 0-0% ; Clayey coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; Moderately moist; Loose consistence; 50-90%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Few, very fine (0-1mm) roots;

Morphological Notes

Observation Notes

300-600MM ROUNDED GRAVEL OCCUR'S AT BASE:

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	Acidity			
						Cmol	(+)/kg			%
0 - 0.04	5.9A	0.039A	2.6H	1.24	0.31	0.03	0.24F	4.5A	4.4F	0.67
								8.1C		0.37
0.04 - 0.1	6A	0.021A								
0.1 - 0.15	5.7A	0.016A	0.9H	0.65	0.11	0.02	0.89F	2.8A	2.6F	0.71
								5.4C		0.37
0.15 - 0.2	6A	0.01A								
0.2 - 0.27	6A	0.013A								
0.27 - 0.3	5.8A	0.015A								
0.3 - 0.6	5.9A	0.011A	0.7H	0.75	0.14	0.04	1.54F	3.2A	3.2F	1.25
								5.7C		0.70
0.6 - 0.65	5.5A	0.009A								
0.65 - 0.9	5.9A	0.008A								
0.9 - 1.2	6A	0.008A								
1.2 - 1.5	6.1A	0.009A	0.8H	1.02	0.12	0.04	0.58F	2.6A	2.6F	1.54
								3.9C		1.03

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 - 0.04		2.44C	7B	0.015A	0.13A	3A		10	40A	25	21	14
0.04 - 0.1								7	34A	27	23	16
0.1 - 0.15		1.18C	5B		0.07A			6	32A	27	24	17
0.15 - 0.2								6	28A	28	24	20
0.2 - 0.27		0.71C			0.05A				30A	27	23	20
0.27 - 0.3								8	31A	26	21	22
0.3 - 0.6		0.45C	3B	0.011A		3.08A		15	38A	21	17	24
0.6 - 0.65								27	45A	17	13	24
0.65 - 0.9								9	52A	19	11	18
0.9 - 1.2								4	58A	18	10	14
1.2 - 1.5		0.12C						23	58A	16	10	15

[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_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 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 ₂ SO ₄ (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 (%)