**Project Name:** Regional

**Project Code:** Site ID: Observation ID: 1 REG T379

**Agency Name: CSIRO Division of Soils (QLD)** 

**Site Information** 

Desc. By: Date Desc.: Locality: M.G. Cannon

Elevation: 24/11/83 20 metres Map Ref.: Sheet No.: 8061 1:100000 Rainfall: 2250 Northing/Long.: 145.90277777778 Runoff: Slow

-18.219444444444 Drainage: Rapidly drained Easting/Lat.:

Geology

ExposureType: Conf. Sub. is Parent. Mat.: Undisturbed soil core No Data

Geol. Ref.: **Substrate Material:** Unconsolidated material (unidentified) QA

**Land Form** 

Rel/Slope Class: Level plain <9m <1% Pattern Type: Anastomatic plain

Morph. Type: Elem. Type: No Data Relief: No Data Prior stream **Slope Category:** Level No Data Slope: 0 % Aspect:

Surface Soil Condition (dry): Soft

**Erosion:** 

**Soil Classification** 

**Australian Soil Classification:** Mapping Unit: N/A Mottled Mesotrophic Brown Kandosol **Principal Profile Form:** Gn2.81

**ASC Confidence: Great Soil Group:** No suitable group

All necessary analytical data are available.

<u>Site Disturbance:</u> No effective disturbance other than grazing by hoofed animals

**Vegetation:** 

Tall Strata - , , . \*Species includes - Eucalyptus tessellaris, Eucalyptus tereticornis

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

I TOTTIC	, Morphology	
A1	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Mottles, 0-0%; Mottles, 0-0%; Silty loam; Strong grade of structure, 2-5 mm, Cast; Smooth-ped fabric; Moderately moist; Weak consistence; Clear, Smooth change to -
A3	0.1 - 0.2 m	Dark brown (10YR3/3-Moist); Mottles, 0-0%; Mottles, 0-0%; Silty clay loam (Light); Moderate grade of structure, 2-5 mm, Cast; Smooth-ped fabric; Moderately moist; Weak consistence; Gradual, Wavy change to -
AB	0.2 - 0.3 m	Brown (10YR4/3-Moist); Mottles, 10YR68, 10-20%, 5-15mm, Faint; Mottles, 10-20%, 5-15mm, Faint; Fine sandy medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Smoothped fabric; Moderately moist; Weak consistence; Diffuse, Wavy change to -
B2	0.3 - 0.6 m	Yellowish brown (10YR5/4-Moist); Mottles, 7.5YR58, 20-50%, 15-30mm, Distinct; Mottles, 20-50%, 15-30mm, Distinct; Sandy medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence;
B2	0.6 - 0.75 m	Yellowish brown (10YR5/4-Moist); Mottles, 7.5YR58, 20-50%, 15-30mm, Distinct; Mottles, 20-50%, 15-30mm, Distinct; Sandy medium clay; Weak grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Diffuse, Wavy change to -
В3	0.75 - 0.9 m	Yellowish brown (10YR5/4-Moist); Mottles, 10YR68, 10-20%, 15-30mm, Distinct; Mottles, 10-20%, 15-30mm, Distinct; Sandy clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence;
В3	0.9 - 0.95 m	Yellowish brown (10YR5/4-Moist); Mottles, 10YR68, 10-20%, 15-30mm, Distinct; Mottles, 10-20%, 15-30mm, Distinct; Sandy clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; Clear, Wavy change to -
D1	0.95 - 1 m	Brownish yellow (10YR6/6-Moist); Mottles, 0-0%; Mottles, 0-0%; Fine sand; Single grain grade of structure; Sandy (grains prominent) fabric; Moderately moist; Loose consistence; Clear, Wavy change to -
D2	1 - 1.2 m	Brownish yellow (10YR6/7-Moist); Mottles, 0-0%; Mottles, 0-0%; Fine sandy loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; Clear, Wavy change to -

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D3	1.2 - 1.5 m	Brownish yellow (10YR6/6-Moist); Mottles, 0-0%; Mottles, 0-0%; Fine sand; Single grain grade of structure; Sandy (grains prominent) fabric; Moderately moist; Loose consistence; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Clear, Wavy change to -
D4	1.5 - 1.8 m	Yellow (10YR7/5-Moist); Mottles, 0-0%; Mottles, 0-0%; Coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; Moderately moist; Loose consistence; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments;
D4	1.8 - 1.9 m	Yellow (10YR7/5-Moist); Mottles, 0-0%; Mottles, 0-0%; Coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; Moderately moist; Loose consistence; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Clear, Wavy change to -
D5	1.9 - 2.1 m	Brown (7.5YR5/4-Moist); Mottles, 0-0%; Mottles, 0-0%; Sand; Single grain grade of structure; Sandy (grains prominent) fabric; Moderately moist; Loose consistence;

Morphological Notes
Observation Notes
Site Notes

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Depth	рН	1:5 EC		nangeable Mg	Cations K	E Na	xchangeable Acidity	CEC	ECEC	ESP
m		dS/m	Ja i	vig	K	Cmol (+)				%
0 - 0.1	5.9A	0.088A	4H	1.4	0.36	0.02	0.11F	6.5A 11C	5.9F	0.31 0.18
0.1 - 0.2	5.6A	0.03A	0.8H	0.65	0.27	0.02	0.67F	3.2A 4C	2.4F	0.63 0.50
0.2 - 0.3 0.3 - 0.6	5.5A 5.8A	0.024A 0.018A	0.76H	0.72	0.18	0.02	0.66F	2.9A	2.3F	0.69
0.6 - 0.75	6A	0.016A						4.6C		0.43
0.75 - 0.9	6A	0.015A	1.04H	0.69	0.2	0.03	0.39F	2.7A 4.1C	2.4F	1.11 0.73
0.9 - 0.95 0.95 - 1	6A 6.1A	0.015A 0.012A	1H	0.5	0.22	0.04	0.06F	2.2A 2.7C	1.8F	1.82 1.48
1 - 1.2 1.2 - 1.5	6.1A 6.1A	0.012A 0.009A	0.92H	0.34	0.17	0.03	0.05F	2.2A	1.5F	1.36
1.5 - 1.8 1.8 - 1.9 1.9 - 2	5.2A 6.2A 6.2A	0.008A 0.008A 0.008A						2.3C		1.30
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density		ticle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%	
0 - 0.1 0.1 - 0.2		2.37C 1.06C	6B	0.029A	0.15 0.08		Α	3	14A 46 13A 50	15 23
0.2 - 0.3 0.3 - 0.6 0.6 - 0.75		0.45C	2B	0.014A		3.62	A	0 0 0	12A 50 13A 50 13A 46	15 22
0.75 - 0.9 0.9 - 0.95		0.33C	2B					0 0	20A 46 27A 44	5 14 20
0.95 - 1 1 - 1.2		0.13C		0.011A		3.82	Α	0 0	25A 53 31A 48	
1.2 - 1.5 1.5 - 1.8		0.11C						0	44A 38	8 11
1.8 - 1.9 1.9 - 2								3	87A 7 70A 20	2 4
Depth COLE Gravimetric/Volumetric Water Contents K sat K unsat									K unsat	
m		Sat.	0.05 Bar		0.5 Bar g - m3/m3	1 Bar	5 Bar 15	Bar	mm/h	mm/h
0 0 4										

0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.6 0.6 - 0.75 0.75 - 0.9 0.9 - 0.95 1 - 1.2

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1.2 - 1.5 1.5 - 1.8 1.8 - 1.9 1.9 - 2

**Project Name:** Regional

10A1

Observation ID: 1 **Project Code:** REG Site ID: T379

**CSIRO Division of Soils (QLD) Agency Name:** 

## **Laboratory Analyses Completed for this profile**

Total sulfur - X-ray fluorescence Total element - Cu(mg/kg) - HF/HClO4 Digest 12\_HF\_CU 12\_HF\_FE 12\_HF\_MN Total element - Fe(%) - HF/HClO4 Digest Total element - Mn(mg/kg) - HF/HCIO4 Digest Total element - Zn(mg/kg) - HF/HClO4 Digest 12\_HF\_ZN

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 15E1\_CA CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach

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 15E1\_NA Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts 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

Effective CEC 15J1

17A1 Total potassium - X-ray fluorescence

3A1 EC of 1:5 soil/water extract pH of 1:5 soil/water suspension 4A1

5A2 Chloride - 1:5 soil/water extract, automated colour

6B3 Total organic carbon - high frequency induction furnace, infrared

Total nitrogen - semimicro Kjeldahl , automated colour 7A2

Total phosphorus - X-ray fluorescence 9A1

9G\_BSES Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES)

Phosphate retention 9H1

Clay (%) - Coventry and Fett pipette method Coarse sand (%) - Coventry and Fett pipette method P10\_CF\_C P10\_CF\_CS P10\_CF\_FS Fine sand (%) - Coventry and Fett pipette method P10\_CF\_Z Silt (%) - Coventry and Fett pipette method

P10\_GRAV Gravel (%)