

Project Name: Regional
Project Code: REG **Site ID:** T191 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.G. Murtha	Locality:	Approx 2.1KM east of top dip yard: east of Spring Creek:
Date Desc.:	25/11/70	Elevation:	No Data
Map Ref.:	Sheet No. : 8259 1:100000	Rainfall:	890
Northing/Long.:	146.713888888889	Runoff:	Moderately rapid
Easting/Lat.:	-19.4958333333333	Drainage:	Well drained

Geology

Exposure Type:	Undisturbed soil core	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	Qa	Substrate Material:	Undisturbed soil core, 1.8 m deep, Granite

Land Form

Rel/Slope Class:	Undulating rises 9-30m 3-10%	Pattern Type:	Rises
Morph. Type:	Upper-slope	Relief:	15 metres
Elem. Type:	Hillslope	Slope Category:	Gently inclined
Slope:	5.2 %	Aspect:	No Data

Surface Soil Condition (dry): Loose

Erosion:

Soil Classification

Australian Soil Classification:	Bleached-Mottled Mesotrophic Yellow Kandosol	Mapping Unit:	N/A
ASC Confidence:	All necessary analytical data are available.	Principal Profile Form:	Uc2.22
		Great Soil Group:	Siliceous sand

Site Disturbance: No effective disturbance other than grazing by hoofed animals

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Sparse. *Species includes - Aristida species, Heteropogon contortus
 Mid Strata - Tree, 3.01-6m, Very sparse. *Species includes - Melaleuca viridiflora, Petalostigma pubescens
 Tall Strata - Tree, 6.01-12m, Very sparse. *Species includes - Eucalyptus polycarpa, Eucalyptus tessellaris

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); ; Loamy sand; Massive grade of structure; Dry; Very weak consistence; 2-10%, Quartz, coarse fragments; Clear change to -
A2	0.1 - 0.2 m	Light brownish grey (10YR6/2-Moist); Light grey (10YR7/2-Dry); ; Loamy sand; Massive grade of structure; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Weak consistence; 10-20%, Quartz, coarse fragments;
A2	0.2 - 0.3 m	Pale brown (10YR6/3-Moist); Very pale brown (10YR8/3-Dry); ; Sand; Massive grade of structure; Dry; Weak consistence; 10-20%, Quartz, coarse fragments;
A2	0.3 - 0.6 m	Pale brown (10YR6/3-Moist); Very pale brown (10YR8/3-Dry); ; Sand; Massive grade of structure; Dry; Weak consistence; 20-50%, fine gravelly, 2-6mm, Quartz, coarse fragments; Diffuse change to -
B1	0.6 - 0.75 m	Light yellowish brown (10YR6/4-Moist); Very pale brown (10YR7/4-Dry); , 5YR54, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Clayey sand; Massive grade of structure; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Firm consistence; 20-50%, fine gravelly, 2-6mm, Quartz, coarse fragments; Very few (0 - 2 %), , Medium (2 -6 mm), Nodules;
B2	0.75 - 0.9 m	Light yellowish brown (10YR6/4-Moist); , 5YR48, 2-10% , 5-15mm, Distinct; , 2-10% , 5-15mm, Distinct; Coarse sandy loam; Massive grade of structure; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Firm consistence; 20-50%, fine gravelly, 2-6mm, Quartz, coarse fragments; Very few (0 - 2 %), , Medium (2 -6 mm), Nodules; Diffuse change to -
BC	0.9 - 1.2 m	Light yellowish brown (10YR6/4-Moist); , 10YR62, 10-20% , 0-5mm, Distinct; , 5YR48, 10-20% , 0-5mm, Distinct; Clayey coarse sand; Massive grade of structure; Many (>5 per 0.01m2) Coarse (>5mm) macropores, Dry; Very firm consistence; 20-50%, fine gravelly, 2-6mm, Quartz, coarse fragments;
BC	1.2 - 1.5 m	Light yellowish brown (10YR6/4-Moist); , 10YR62, 10-20% , 0-5mm, Distinct; , 5YR48, 10-20% , 0-5mm, Distinct; Clayey coarse sand; Massive grade of structure; Many (>5 per 0.01m2) Coarse (>5mm) macropores, Dry; Very firm consistence; 20-50%, fine gravelly, 2-6mm, Quartz, coarse fragments;

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C 1.5 - 1.8 m ;

Morphological Notes

C W'd granite:rock fabric and much fine biotite present:

Observation Notes

Site Notes

TOWNSVILLE

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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	6.5A	0.023A	2B	0.8	0.13	0.12		1C	12.00
0.1 - 0.2	6.2A	0.017A							
0.2 - 0.3	6.5A	0.017A	1B	0.3	0.05	0.14		0.8C	17.50
0.3 - 0.6	6.1A	0.014A							
0.6 - 0.75	5.9A	0.02A							
0.75 - 0.9	5.8A	0.023A	0.8B	1	0.17	0.16		1.8C	8.89
0.9 - 1.2	5.8A	0.017A							
1.2 - 1.5	5.9A	0.02A							
1.5 - 1.8	5.8A	0.026A							

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15A2_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_K	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_MG	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_NA	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
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
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
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)
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 (%)