

**Project Name:** Regional  
**Project Code:** REG **Site ID:** T308 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**Site Information**

<b>Desc. By:</b>	G.G. Murtha	<b>Locality:</b>	
<b>Date Desc.:</b>	11/11/81	<b>Elevation:</b>	15 metres
<b>Map Ref.:</b>	Sheet No. : 7965 1:100000	<b>Rainfall:</b>	0
<b>Northing/Long.:</b>	145.466666666667	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	-16.266666666667	<b>Drainage:</b>	No Data

**Geology**

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	Dch	<b>Substrate Material:</b>	No Data

**Land Form**

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	Alluvial fan
<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Fan	<b>Slope Category:</b>	No Data
<b>Slope:</b>	3 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Haplic Dystrophic Red Ferrosol		<b>Principal Profile Form:</b>	Gn3.11
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Krasnozem

Analytical data are incomplete but reasonable confidence.

**Site Disturbance:** Limited clearing, for example selective logging

**Vegetation:**

**Surface Coarse Fragments:** 10-20%, cobbly, 60-200mm, subrounded, Basalt

**Profile Morphology**

A1	0 - 0.1 m	Dark reddish brown (5YR3/2-Moist); ; Clay loam (Heavy); Strong grade of structure, 5-10 mm, Cast; Smooth-ped fabric; Dry; Very firm consistence; 20-50%, cobbly, 60-200mm, Basalt, coarse fragments; ManyDiffuse change to -
B11	0.1 - 0.2 m	Reddish brown (5YR4/3-Moist); ; Light clay (Heavy); Moderate grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Dry; Very firm consistence; 2-10%, medium gravelly, 6-20mm, Basalt, coarse fragments; Common
B12	0.2 - 0.3 m	Reddish brown (5YR4/4-Moist); ; Light clay; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Dry; Very firm consistence; Diffuse change to -
B2	0.3 - 0.45 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Dry; Very firm consistence;
B2	0.45 - 0.6 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Dry; Very firm consistence; 20-50%, cobbly, 60-200mm, Basalt, coarse fragments;
B2	0.6 - 0.8 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Dry; Very firm consistence; 50-90%, cobbly, 60-200mm, Basalt, coarse fragments;

**Morphological Notes**

**Observation Notes**

THE GRAVELS ARE BASIC VOLCANICS FROM HODGKINSON FORMATION

**Site Notes**

DAINTREE

**Observation ID: 1**

**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 - 0.1	5.6A	0.086A	6.7H	2.14	0.35	0.19	0.3F	9.02A 11C	2.11 1.73
0.1 - 0.2	5.6A	0.059A							
0.2 - 0.3	5.8A	0.023A	1.08H	0.64	0.15	0.07	0.2F	2.69A 3C	2.60 2.33
0.3 - 0.45	5.9A	0.017A							
0.45 - 0.6	5.6A	0.068A	0.66H	0.57	0.14	0.05	0.3F	2.13A 2C	2.35 2.50
0.6 - 0.8	5.8A	0.014A							

Depth m	CaCO3 %	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle		Size FS %	Analysis	
								GV	CS		Silt	Clay
0 - 0.1		2.65D	22B	0.095A	0.48A	1.12A		32	13A	17	35	35
0.1 - 0.2		0.92D	8B		0.16A							
0.2 - 0.3		0.42D	9B		0.08A			13	12A	18	34	36
0.3 - 0.45			14B									
0.45 - 0.6			14B	0.047A		1.32A		8	15A	21	28	35
0.6 - 0.8			30B									

[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
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
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)
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 (%)