Project Name: Regional

Project Code: Site ID: T286 Observation ID: 1 REG

CSIRO Division of Soils (QLD) Agency Name:

Site Information

Locality: G.G. Murtha Mission Beach Road: 4KM west of Feluga Road:

Desc. By: Date Desc.: Elevation: 22/08/80 25 metres Map Ref.: Sheet No.: 8162 1:100000 Rainfall: 4000

Northing/Long.: 146.016666666667 Runoff: Moderately rapid -17.9166666666667 Drainage: Imperfectly drained Easting/Lat.:

Geology

ExposureType: Conf. Sub. is Parent. Mat.: Soil pit No Data

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

Land Form

Rel/Slope Class: Gently undulating plains <9m Pattern Type: Alluvial fan

Morph. Type: Upper-slope Relief: 4 metres Gently inclined Elem. Type: Fan Slope Category: Aspect: No Data Slope:

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A Gn3.34 **Principal Profile Form:** N/A

ASC Confidence: Red podzolic soil **Great Soil Group:**

Confidence level not specified

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

Vegetation:

Mid Strata - Tree, 3.01-6m, Very sparse. *Species includes - Acacia species, Bassia species

Tall Strata - Tree, 6.01-12m, Very sparse. *Species includes - Melaleuca viridiflora

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); ; Sandy loam; Weak grade of structure, 2-5 mm, Cast; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, Quartz, coarse fragments;
A3	0.1 - 0.2 m	Brown (10YR4/3-Moist); , 10YR54, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Sandy clay loam (Light); Weak grade of structure, 2-5 mm, Cast; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, Quartz, coarse fragments; Gradual change to -
B1	0.2 - 0.3 m	Reddish yellow (5YR6/8-Moist); , 10YR63, 10-20% , 5-15mm, Faint; , 10-20% , 5-15mm, Faint; Sandy clay loam; Massive grade of structure; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, Quartz, coarse fragments; Gradual change to -
B2	0.3 - 0.6 m	Yellowish red (5YR5/6-Moist); , 10YR65, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Light medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, Quartz, coarse fragments; Gradual change to -
B2	0.6 - 0.9 m	Dark red (2.5YR3/6-Moist); , 10YR82, 20-50% , 5-15mm, Prominent; , 10YR76, 20-50% , 5-15mm, Prominent; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Moist; Very firm consistence; 20-50%, fine gravelly, 2-6mm, Quartz, coarse fragments; Diffuse change to -
B2	0.9 - 1.2 m	Yellow (10YR8/5-Moist); , 10YR82, 10-20% , 5-15mm, Faint; , 5YR58, 10-20% , 5-15mm, Faint; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Moist; Very firm consistence;
B2	1.2 - 1.5 m	Yellow (10YR8/5-Moist); , 10YR82, 10-20% , 5-15mm, Faint; , 5YR58, 10-20% , 5-15mm, Faint; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Moist; Very firm consistence;
	1.5 - 1.8 m	White (10YR8/2-Moist); , 2.5YR36, 10-20% , 5-15mm, Prominent; , 10YR66, 10-20% , 5-15mm, Prominent; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Very firm consistence; 20-50%, fine gravelly, 2-6mm, Quartz, coarse fragments;

Morphological Notes

Project Name: Regional
Project Code: REG Site ID: T286
Agency Name: CSIRO Division of Soils (QLD) Observation ID: 1

FROM 60CM RED MOTTLES ARE HARDENED

Site Notes MISSION BCH RD

Regional REG Site ID: T286 CSIRO Division of Soils (QLD) Observation ID: 1

Project Name: Project Code: Agency Name:

Depth	рН	1:5 EC	Exc	hangeable	e Cations		Exchangeable	CEC	ı	ECEC	E	SP
m		dS/m	Ca I	Mg	K	Na Cmol (+	Acidity -)/kg				o,	%
0 - 0.1	5.4A	0.023A	0.06H	0.1	0.06	0.05	2F	1.4A 3.9C		2.3F	_	.57 .28
0.1 - 0.2	5.4A	0.023A	0.1H	0.11	0.06	0.04	2F	1.3A 2.1C		2.3F	_	.08 .90
0.2 - 0.3 0.3 - 0.6	5.2A 5.1A	0.029A 0.02A	0.1H	<0.01	0.05	0.05	2.2F	1.7A 1.8C		2.4F		.94 .78
0.6 - 0.9 0.9 - 1.2 1.2 - 1.5	5A 5.1A 5.1A	0.017A 0.017A 0.017A	<0.01H	<0.01	<0.01	<0.01	2F	2.3A		2F	2	.70
1.5 - 1.8	5A	0.02A										
Depth	CaCO3	Organic	Avail.	Total					ticle		nalysis	
m	•	С	P									
	%	%	mg/kg	P %	N %	K %	Density Mg/m3	GV	CS	FS %	Silt	Liay
0 - 0.1	%	% 1.26D	-		%			GV 2	cs 48A		Silt (11
0 - 0.1 0.1 - 0.2	%		mg/kg		% 0.0	%		2 10	48A 45A	% 34 35	7 4	11 16
0 - 0.1 0.1 - 0.2 0.2 - 0.3	%	1.26D	mg/kg 4B 11B		% 0.0	%)7A		2 10 16	48A 45A 42A	% 34 35 32	7 4 6	11 16 20
0 - 0.1 0.1 - 0.2	%	1.26D	mg/kg 4B		% 0.0	%)7A		2 10	48A 45A	% 34 35	7 4	11 16
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.6 0.6 - 0.9 0.9 - 1.2	%	1.26D	mg/kg 4B 11B		% 0.0	%)7A		2 10 16	48A 45A 42A	% 34 35 32	7 4 6	11 16 20
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.6 0.6 - 0.9 0.9 - 1.2 1.2 - 1.5	%	1.26D	mg/kg 4B 11B		% 0.0	%)7A		2 10 16 5	48A 45A 42A 43A 38A	% 34 35 32 16	7 4 6 12 23	11 16 20 29
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.6 0.6 - 0.9 0.9 - 1.2	%	1.26D	mg/kg 4B 11B		% 0.0	%)7A		2 10 16 5	48A 45A 42A 43A	% 34 35 32 16	7 4 6 12	11 16 20 29
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.6 0.6 - 0.9 0.9 - 1.2 1.2 - 1.5	%	1.26D	mg/kg 4B 11B 4B	%	% 0.0	% 07A 04A	Mg/m3	2 10 16 5	48A 45A 42A 43A 38A	% 34 35 32 16 8	7 4 6 12 23	11 16 20 29 31 27

0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.6 0.6 - 0.9 0.9 - 1.2 1.2 - 1.5 1.5 - 1.8

Project Name: Regional

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Laboratory Analyses Completed for this profile

12_HF_CU Total element - Cu(mg/kg) - HF/HClO4 Digest 12_HF_FE 12_HF_MN 12_HF_ZN Total element - Fe(%) - HF/HCIO4 Digest Total element - Mn(mg/kg) - HF/HCIO4 Digest Total element - Zn(mg/kg) - HF/HClO4 Digest

Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts 15A2_CEC 15D1_CEC CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach

15E1_CA 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 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 Effective CEC 15J1

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

6A1_UC Organic carbon (%) - Uncorrected Walkley and Black method Total nitrogen - semimicro Kjeldahl , automated colour Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES) 7A2 9G_BSES

MIN_EC Exchange Capacity - Minerology

P10_CF_C Clay (%) - Coventry and Fett pipette method P10_CF_CS P10_CF_FS P10_CF_Z Coarse sand (%) - Coventry and Fett pipette method Fine sand (%) - Coventry and Fett pipette method Silt (%) - Coventry and Fett pipette method

P10_GRAV Gravel (%)

XRD_C_Ch2 XRD_C_Gb Chloritized 2:1 minerals - X-Ray Diffraction

Gibbsite - X-Ray Diffraction

XRD_C_K2O K2O - X-Ray Diffraction or Clay Fraction (air dry)

XRD_C_Ka Kaolin - X-Ray Diffraction