

Project Name: Regional
Project Code: REG **Site ID:** T166 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: R.F. Isbell **Locality:** 5.9KM north of turnoff into Glendhu
Homestead:1.9KM north of road crossing Glendhu
Creek:
Date Desc.: 14/10/70 **Elevation:** No Data
Map Ref.: Sheet No. : 7961 1:100000 **Rainfall:** 0
Northing/Long.: 145.091666666667 **Runoff:** Very slow
Easting/Lat.: -18.383333333333 **Drainage:** Moderately well drained

Geology

ExposureType: Undisturbed soil core **Conf. Sub. is Parent. Mat.:** No Data
Geol. Ref.: Czm **Substrate Material:** Undisturbed soil core, 1.8 m deep,Basalt

Land Form

Rel/Slope Class: Level plain <9m <1% **Pattern Type:** Plain
Morph. Type: Flat **Relief:** 0 metres
Elem. Type: Plain **Slope Category:** Level
Slope: 0 % **Aspect:** No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification: **Mapping Unit:** N/A
Ferric Eutrophic Brown Kandosol **Principal Profile Form:** Gn3.22
ASC Confidence: **Great Soil Group:** No suitable group
All necessary analytical data are available.

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

Vegetation: Low Strata - Tussock grass, 0.51-1m, Mid-dense. *Species includes - None recorded
Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus leptophleba, Eucalyptus crebra,

Eucalyptus

Surface Coarse Fragments: 2-10%, bouldery, 600mm-2m, subrounded, Basalt

Profile Morphology

A11	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Dark brown (10YR3/3-Dry); ; Clay loam (Heavy); Weak grade of structure, 2-5 mm, Granular; Dry; Strong consistence; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Nodules; Few, fine (1-2mm) roots; Gradual change to -
A12	0.1 - 0.2 m	Dark brown (10YR3/3-Moist); Dark yellowish brown (10YR4/4-Dry); ; Clay loam (Heavy); Weak grade of structure, 2-5 mm, Granular; Dry; Strong consistence; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Nodules; Few, fine (1-2mm) roots; Gradual change to -
B1	0.2 - 0.3 m	Dark yellowish brown (10YR4/4-Moist); Dark yellowish brown (10YR4/6-Dry); ; Light clay; Weak grade of structure, 2-5 mm, Granular; Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Strong consistence; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Nodules; Gradual change to -
B21	0.3 - 0.6 m	Dark yellowish brown (10YR4/4-Moist); Dark yellowish brown (10YR4/6-Dry); ; Light medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Strong consistence; 2-10%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Nodules; Gradual change to -
B21	0.6 - 0.9 m	Dark yellowish brown (10YR4/4-Moist); Dark yellowish brown (10YR4/6-Dry); , 5YR46, 2-10% , Faint; , 2-10% , Faint; Light medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very firm consistence; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Nodules; Gradual change to -
B22	0.9 - 1.2 m	Dark yellowish brown (10YR4/4-Moist); Dark yellowish brown (10YR4/6-Dry); ; Medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very firm consistence; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Nodules;
B22	1.2 - 1.5 m	Dark yellowish brown (10YR4/4-Moist); Dark yellowish brown (10YR4/6-Dry); ; Medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very firm consistence; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Nodules; Gradual change to -

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1.5 - 1.8 m Dark yellowish brown (10YR4/4-Moist); Dark yellowish brown (10YR4/6-Dry); ; Medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Very firm consistence; Very few (0 - 2 %), Ferromanganiferous, , Nodules; Clear change to -

BC 1.8 - 2 m ;

Morphological Notes

BC Soft w'd BA with areas of brown clay decreasing with depth:

Observation Notes

SURFACE HAS 20-50% <4MM FE NODULES:

Site Notes

GLENDHU

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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	6.4A	0.047A	12B	4	0.83	0.05			
0.1 - 0.2	6.4A	0.038A	8.3B	3.4	0.42	0.05			
0.2 - 0.3	6.3A	0.038A	7.8B	3.4	0.34	0.05			
0.3 - 0.6	6.3A	0.032A	6.8B	3.4	0.14	0.06			
0.6 - 0.9	6.6A	0.023A	5.5B	3.8	0.06	0.05			
0.9 - 1.2	6.7A	0.026A	5.2B	5	0.04	0.07			
1.2 - 1.5	6.6A	0.026A	4.9B	5.9	0.06	0.09			
1.5 - 1.8	6.6A	0.023A							
1.8 - 2		0.023A							

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 - 0.1		1.57D	42B	0.16A	0.09A	0.25A		22	24A	14	21	40
0.1 - 0.2		0.54D	3B	0.082A	0.04A	0.24A		10	17A	14	24	49
0.2 - 0.3		0.35D	3B		0.03A			18	17A	12	17	57
0.3 - 0.6		0.22D	4B	0.057A	0.02A	0.17A		22	14A	11	18	57
0.6 - 0.9			5B					28	18A	10	19	59
0.9 - 1.2		0.13D	10B	0.069A		0.12A		20	14A	10	14	65
1.2 - 1.5			10B					20	14A	10	18	63
1.5 - 1.8		0.09D						8	7A	16	20	57
1.8 - 2				0.031A		0.14A		9	15A	28	20	37

[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/HClO4 Digest
12_HF_FE	Total element - Fe(%) - HF/HClO4 Digest
12_HF_MN	Total element - Mn(mg/kg) - HF/HClO4 Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO4 Digest
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15A2_CA	Exchangeable bases (Ca2+,Mg2+,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
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 H2SO4 (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 (%)
XRD_C_Hm	Hematite - X-Ray Diffraction
XRD_C_Is	Interstratified clay minerals - X-Ray Diffraction
XRD_C_Ka	Kaolin - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction