Project Name: HEL

Project Code: Observation ID: 1 HEL Site ID: H144

CSIRO Division of Soils (TAS) Agency Name:

Site Information

Locality: Desc. By: West Ridgley J. Loveday Elevation: 244 metres Date Desc.: 24/03/56 Sheet No.: 8015 Map Ref.: 1:100000 Rainfall: 1140 Northing/Long.: Runoff: 145.775 Rapid

Easting/Lat.: Moderately well drained -41.15 Drainage:

Geology

ExposureType: Conf. Sub. is Parent. Mat.: No Data Soil pit Substrate Material: Geol. Ref.: No Data Basalt

Land Form

Rel/Slope Class: Undulating hills 90-300m 3-Pattern Type: Plateau Morph. Type: No Data Relief: 152 metres Elem. Type: Slope Category: Hillslope Moderately inclined

15.8 % Aspect: No Data Slope:

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification: N/A **Mapping Unit:** Melanic Eutrophic Brown Ferrosol **Principal Profile Form:** Gn3.21 **ASC Confidence: Great Soil Group:** Prairie soil

All necessary analytical data are available.

Site Disturbance: Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation:

Surface Coarse Fragments:

Profile	e Morphology	
Α	0 - 0.08 m	Very dark brown (10YR2/2-Moist); ; Clay loam (Heavy); Strong grade of structure, <2 mm, Subangular blocky; Moist; Weak consistence; Diffuse change to -
Α	0.08 - 0.18 m	Very dark brown (10YR2/2-Moist); ; Clay loam (Heavy); Strong grade of structure, <2 mm, Subangular blocky; Moist; Weak consistence; Clear change to -
В	0.22 - 0.33 m	Very dark greyish brown (2.5Y3/2-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Subangular blocky; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Diffuse change to -

В 0.33 - 0.46 m Dark greyish brown (2.5Y4/3-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moist; Weak consistence; Diffuse change to -В 0.46 - 0.61 m

Dark greyish brown (2.5Y4/3-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moist; Weak consistence; Common (10 - 20 %), Unidentified, Medium (2 -6 mm), Soft segregations; Diffuse change to -

Dark greyish brown (2.5Y4/3-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, 0.61 - 0.81 m Angular blocky; Moist; Weak consistence; 0-2%, stony, 200-600mm, Basalt, coarse fragments; Common (10 - 20 %), Unidentified, Medium (2 -6 mm), Soft segregations; Diffuse change to -

0.81 - 0.99 m Dark greyish brown (2.5Y4/3-Moist); ; Medium clay; Weak grade of structure, 5-10 mm, Angular blocky; Moist; Weak consistence; Common (10 - 20 %), Unidentified, Medium (2 -6 mm), Soft

segregations; Diffuse change to -

С 1.04 - 1.24 m Greyish brown (2.5Y5/3-Moist); , 10YR56; Moist; Weak consistence; 2-10%, Basalt, coarse fragments;

1.68 - 1.83 m Yellowish brown (10YR5/6-Moist); , 10YR76; Weak consistence;

Morphological Notes

Observation Notes

104-124CM AND 168-183CM ARE MEALY DECOMPOSED BA WITH A FEW POCKETS OF DYG CLAY:33-99CM BL STAINING ON GV:

Site Notes

BURNIE

R

В

Project Name: HEL
Project Code: HEL Site ID: H144
Agency Name: CSIRO Division of Soils (TAS) Observation ID: 1

Project Name: HEL
Project Code: HEL Site ID: H144
Agency Name: CSIRO Division of Soils (TAS) Observation ID: 1

<u>Laboratory Test Results:</u>												
Depth	рН	1:5 EC		hangeable Mg	Cations K	E: Na	xchangeable Acidity	CEC	ECE	EC	ESP	
m		dS/m	-	g		Cmol (+)/					%	
0 - 0.08	5.8A		10.8H	4	1.3	0.18	10.5H 23.2E		39.	5B		
0.08 - 0.18 0.22 - 0.33	5.6A 5.3A		5.05H	4.8	0.82	0.15	8.6H 19.6E		30.	4B		
0.33 - 0.46 0.46 - 0.61	5A 4.8A						19.00					
0.61 - 0.81 0.81 - 0.99	4.7A 4.9A		2.6H	4.9	0.1	0.16	13.4H 21E		28.	8B		
1.04 - 1.24 1.68 - 1.83	4.8A 4.7A						212					
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density		cle Siz	e Analys S Silt	is Clay	
m	%	%	mg/kg	%	%	%	Mg/m3		%		C,	
0 - 0.08		3.4D		0.08D					2D	16 3	1 37	
0.08 - 0.18 0.22 - 0.33 0.33 - 0.46		2.7D 1.3D		0.062E 0.024E	-	-			1D	11 32	2 48	
0.46 - 0.61 0.61 - 0.81		0.6D										
0.81 - 0.99 1.04 - 1.24 1.68 - 1.83				0.016)				5B	11 25	5 58	
Depth	COLE	Sat.	Gravimetric/Volumetric Water Contents K sat K uns 0.05 Bar 0.1 Bar 0.5 Bar 1 Bar 5 Bar 15 Bar						at			
m		Jai.	0.03 Bai		g - m3/m		J Bai 131		mm/h	mm/l	h	
0 - 0.08 0.08 - 0.18 0.22 - 0.33 0.33 - 0.46												

0.46 - 0.61 0.61 - 0.81 0.81 - 0.99 1.04 - 1.24 1.68 - 1.83

Project Name: HEL

Project Code: HEL Site ID: H144 Observation ID: 1

Agency Name: CSIRO Division of Soils (TAS)

Laboratory Analyses Completed for this profile

12_HCL_FE Total element - Fe(%) - Total acid(HCl) extractable Fe

13C1_FE Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon

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
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_H1 Exchangeable hydrogen - meq per 100g of soil - Hydrogen By back titration of A or B 15G1_H Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0 Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)

2_LOI Loss on Ignition (%)
2A1 Air-dry moisture content
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

9A_HCL Total element - P(%) - By boiling HCl

P10_PB_C
P10_PB_CS
P10_PB_FS
P10_PB_FS
P10_PB_Z
Clay (%) - Plummet balance
Coarse sand (%) - Plummet balance
Fine sand (%) - Plummet balance
Silt (%) - Plummet balance

P10A1_C Clay (%) - Pipette
P10A1_CS Coarse sand (%) - Pipette
P10A1_FS Fine sand (%) - Pipette
P10A1_Z Silt (%) - Pipette

XRD_C_Ch2 Chloritized 2:1 minerals - X-Ray Diffraction

XRD_C_Gt
XRD_C_Ka
XRD_C_Qz
Geothite - X-Ray Diffraction
Kaolin - X-Ray Diffraction
XRD_C_Qz
Quartz - X-Ray Diffraction