Project Name: HEL

Project Code: HEL Site ID: H139 Observation ID: 1

Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By:J. LovedayLocality:3.2KM north of Oldina:Date Desc.:22/03/56Elevation:177 metres

Geology

ExposureType:Soil pitConf. Sub. is Parent. Mat.:No DataGeol. Ref.:No DataSubstrate Material:Mudstone

Land Form

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:Simple-slopeRelief:No Data

Elem. Type: Hillslope Slope Category: Moderately inclined

Slope: 21.3 % Aspect: No Data

Surface Soil Condition (dry): Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/AAcidic Mesotrophic Brown DermosolPrincipal Profile Form:Gn3.74

ASC Confidence: Great Soil Group: Yellow podzolic soil

All necessary analytical data are available.

Site Disturbance: Limited clearing, for example selective logging

Vegetation: Low Strata - Fern, 0.51-1m, Mid-dense. *Species includes - None recorded

Tall Strata - Tree, , . *Species includes - Eucalyptus obliqua, Eucalyptus viminalis

Surface Coarse Fragments:

Profile	Morp	<u>hology</u>

Prome	worphology	
A1	0 - 0.04 m	Very dark brown (10YR2/2-Moist); ; Silty loam; Moderate grade of structure, 2-5 mm, Subangular blocky; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments; ManyDiffuse change to -
A1A2	0.04 - 0.09 m	Dark grey (10YR4/1-Moist); ; Silty loam; Weak grade of structure, 5-10 mm, Subangular blocky; Moderately moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; CommonDiffuse change to -
A2	0.09 - 0.18 m	Greyish brown (10YR5/2-Moist); , 10YR56; Silty clay loam; Massive grade of structure; Moderately moist; Very firm consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Diffuse change to -
B1	0.2 - 0.3 m	Yellowish brown (10YR5/6-Moist); , 2.5Y64; Silty medium clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moderately moist; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Diffuse change to -
	0.3 - 0.43 m	Yellowish brown (10YR5/6-Moist); ; Heavy clay (Light); 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Few, coarse (>5mm) roots; Diffuse change to -
	0.43 - 0.56 m	Yellowish brown (10YR5/6-Moist); ; Heavy clay; Massive grade of structure; 2-10%, coarse gravelly, 20-60mm, Quartz, coarse fragments; Diffuse change to -
ВС	0.64 - 0.76 m	Brownish yellow (10YR6/6-Moist); ; Heavy clay; Massive grade of structure; Moist; Very firm consistence; Diffuse change to -
ВС	0.89 - 1.07 m	Brownish yellow (10YR6/6-Moist); ; Silty medium clay; Massive grade of structure; Moist; Very firm consistence; 20-50%, cobbly, 60-200mm, Gravel, coarse fragments;

Morphological Notes

Observation Notes

89-107CM ZC WITH MODERATELY W`D TILLITE (GRAVELS ARE TILLITE):64-76CM CLAY WITH LIGHTLY W`D TILLITE:

Site Notes

BURNIE

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Laboratory	y Test Results:

Depth Depth	рН	1:5 EC		nangeable			exchangeable	CEC		ECEC	ı	ESP
m		dS/m	Ca N	Лg	K	Na Cmol (+)	Acidity /kg					%
0 - 0.04	4A		3.7H	2.2	0.57	0.29	33.1H 40.8E			47.6B		
0.04 - 0.09 0.09 - 0.18	4A 4.1A						.0.02					
0.2 - 0.3	4.4A		0.25H	1.2	0.27	0.21	13.5H 16.7E			18.6B		
0.3 - 0.43 0.43 - 0.56	4.4A 4.7A		0.27H	1.1	0.26	0.35	25.4H 31.2E			33.2B		
0.64 - 0.76 0.89 - 1.07	4.9A 5.2A						31.22					
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	P: GV	article CS	Size FS	Analysis Silt	
m	%	%	mg/kg	%	%	%	Mg/m3	٠.		%	•	J.u.,
0 - 0.04 0.04 - 0.09		5.5D 2.8D		0.015	0.32 0.18			4	8D	34	30	20
0.09 - 0.18 0.2 - 0.3 0.3 - 0.43		1.1D 0.8D						8	4D	31	32	34
0.43 - 0.56 0.64 - 0.76 0.89 - 1.07								2	2D	19	25	59
Depth	COLE	Sat.	Gravi 0.05 Bar		lumetric V 0.5 Bar	Vater Cont 1 Bar	ents 5 Bar 15 I	Rar	Ks	at	K unsa	t
m		Sai.	U.UJ Bal		g - m3/m		J Bai 131	Jai	mm	/h	mm/h	

0 - 0.04 0.04 - 0.09 0.09 - 0.18 0.2 - 0.3 0.3 - 0.43 0.43 - 0.56 0.64 - 0.76 0.89 - 1.07

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Laboratory Analyses Completed for this profile

15E1_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble 15E1_K 15E1_MG 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 15E1_NA Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts

Exchangeable hydrogen - meq per 100g of soil - Hydrogen By back titration of A or B 15G_C_H1 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) 15G1_H 15J_H

Loss on Ignition (%) 2_LOI 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

Total nitrogen - semimicro Kjeldahl , automated colour 7A2

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

P10_GRAV Gravel (%)

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