Project Name: HEL

Project Code: Site ID: H141 Observation ID: 1 HEL

Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: Date Desc.: Locality: 2KM north of Preolenna: J. Loveday

Elevation: 213 metres 22/03/56

Sheet No.: 8015 1:100000 Map Ref.: Rainfall: 1640 Northing/Long.: 145.55555555556 Runoff: Moderately rapid Easting/Lat.: -41.0666666666667 Drainage: Moderately well drained

Geology

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

Geol. Ref.: **Substrate Material:** No Data Soil pit, 1.1 m deep, Schist

Land Form

Rel/Slope Class: Steep low hills 30-90m 32-56% Low hills Pattern Type: Morph. Type: Upper-slope Relief: 61 metres Elem. Type: Slope Category: Hillslope Steep Slope: 0 % Aspect: No Data

Surface Soil Condition (dry): Self-mulching

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A Acidic Mesotrophic Brown Kandosol **Principal Profile Form:** Gn3.54

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

Surface Coarse Fragments:

Drofile Marchales

<u>Profile</u>	<u>Morphology</u>	
O1	0.05 - 0.02 m	Organic Layer; ; ManyDiffuse change to -
O2	0.02 - 0 m	Organic Layer; Very dark greyish brown (10YR3/2-Moist); ; CommonDiffuse change to -
A1	0 - 0.05 m	Dark brown (7.5YR3/2-Moist); ; Fine sandy loam; Weak grade of structure, 5-10 mm, Subangular blocky; Moist; Weak consistence; 10-20%, angular, Quartz, coarse fragments; CommonDiffuse change to -
A2	0.05 - 0.1 m	Dark grey (10YR4/1-Moist); ; Fine sandy loam; Moist; Weak consistence; 10-20%, angular, Quartz, coarse fragments; CommonDiffuse change to -
B1	0.18 - 0.25 m	Dark yellowish brown (10YR4/6-Moist); ; Sandy clay loam (Light); Weak grade of structure, 5-10 mm, Subangular blocky; Moist; Weak consistence; 10-20%, angular, Quartz, coarse fragments; CommonDiffuse change to -
	0.25 - 0.41 m	Dark yellowish brown (10YR4/6-Moist); ; Sandy clay loam (Light); Weak grade of structure, 5-10 mm, Subangular blocky; Weak consistence; 10-20%, angular, Quartz, coarse fragments; FewDiffuse change to -
	0.41 - 0.56 m	Yellowish brown (10YR5/7-Moist); ; Fine sandy medium clay; Massive grade of structure; Weak consistence; 10-20%, angular, Quartz, coarse fragments; Diffuse change to -
	0.64 - 0.76 m	Yellowish brown (10YR5/7-Moist); ; Silty medium clay; Massive grade of structure; Weak consistence; Slightly plastic; Normal plasticity; 10-20%, angular, Quartz, coarse fragments;
ВС	0.76 - 0.89 m	Yellowish brown (10YR5/7-Moist); ; Heavy clay; Moderately moist; Very firm consistence; 10-20%, angular, Quartz, coarse fragments; Sharp change to -
С	0.89 - 1.07 m	Yellowish brown (10YR5/6-Moist); , 2.5YR35; Moderately moist; Very strong consistence;
	1.07 - 1.17 m	;

Morphological Notes

On parent material (schists):

Observation Notes

0-46CM WORM ACTIVITY:94-112CM COMPACT DECOMPOSED SCHIST:23-94CM DECOMPOSED SCHIST FRACTION

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Site Notes

BURNIE

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<u>Laboratory Test Results:</u>													
Depth	рН	1:5 EC		hangeable Mg	Cations K	Na	xchangeable Acidity	CEC		ECEC		SP	
m		dS/m				Cmol (+)	/kg				•	%	
0 - 0.05	4A												
0.05 - 0.1	4.3A		1.3H	0.58	0.22	0.14	17.9H 22.3E			24.5E			
0.1 - 0.15	4.3A						22.02						
0.23 - 0.3	4.5A		0.1H	0.65	0.09	0.11	8.3H			11.8E			
0.3 - 0.46	4.6A												
0.46 - 0.61	4.9A												
0.61 - 0.81	4.6A												
0.81 - 0.94	5A												
0.94 - 1.12	5A												
Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk				Analysis		
	%	C %	P mg/kg	P %	N %	K %	Density Market 2	G۷	CS	FS %	Silt	Clay	
m	70	70	mg/kg	70	70	70	Mg/m3			70			
0 - 0.05				0.02D)								
0.05 - 0.1		2.9D		0.0020		52A		5	8D	62	15	12	
0.1 - 0.15		1.5D		0.0001	0.0			Ŭ	0.5	02			
0.23 - 0.3		0.8D			0.05			6	10D	61	16	15	
0.3 - 0.46								-		-			
0.46 - 0.61													
0.61 - 0.81													
0.81 - 0.94													
0.94 - 1.12													
Depth COLE			Gravimetric/Volumetric Water Contents						K sat K unsat				
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar 15 I	3ar		-			
m				g/g - m3/m		3		m		m/h mn			
0 - 0.05													
0.05 - 0.1													
0.1 - 0.15													
0.00													

0.1 - 0.15 0.23 - 0.3 0.3 - 0.46 0.46 - 0.61 0.61 - 0.81 0.81 - 0.94 0.94 - 1.12

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Laboratory Analyses Completed for this profile

15_NR Sum of Ex. cations + Ex. acidity - Not recorded

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 Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0

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_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 XRD_C_Hm Hematite - X-Ray Diffraction XRD_C_II Illite - X-Ray Diffraction XRD_C_Ka XRD_C_Qz Kaolin - X-Ray Diffraction Quartz - X-Ray Diffraction XRD_C_Vm Vermiculte - X-Ray Diffraction