Project Name: HEL

Project Code: HEL Site ID: H118 Observation ID: 1

Agency Name: CSIRO Division of Soils (TAS)

**Site Information** 

Desc. By: K.D. Nicholls Locality: 2KM south east of Tolla:

 Date Desc.:
 18/05/55
 Elevation:
 390 metres

 Map Ref.:
 Sheet No.: 8015
 1:100000
 Rainfall:
 1520

 Northing/Long.:
 145.730555555556
 Runoff:
 Very slow

**Geology** 

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

Geol. Ref.: No Data Substrate Material: 0.6 m deep,Basalt

**Land Form** 

 Rel/Slope Class:
 Level plain <9m <1%</th>
 Pattern Type:
 Plain

 Morph. Type:
 Flat
 Relief:
 0 metres

 Elem. Type:
 Plain
 Slope Category:
 Level

 Slope:
 0 %
 Aspect:
 No Data

Surface Soil Condition (dry):

**Erosion:** 

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/AHumose Dystrophic Red FerrosolPrincipal Profile Form:Gn3.11ASC Confidence:Great Soil Group:Krasnozem

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

**Vegetation:** 

**Surface Coarse Fragments:** 

**Profile Morphology** 

0 - 0.08 m Dark brown (7.5YR3/4-Moist); ; Loam (Heavy); Strong grade of structure, 2-5 mm, Subangular

blocky; Weak consistence: 0-2%, coarse gravelly, 20-60mm, Basalt, coarse fragments;

Abundant, fine (1-2mm) roots; Diffuse change to -

0.08 - 0.15 m Brown (7.5YR4/4-Moist); Clay loam; Strong grade of structure, 2-5 mm, Subangular blocky;

Strong grade of structure, <2 mm, Subangular blocky; Weak consistence; 0-2%, coarse gravelly,

20-60mm, Basalt, coarse fragments; Many, fine (1-2mm) roots;

0.15 - 0.3 m Reddish brown (5YR4/4-Moist); ; Fine sandy medium clay; Strong grade of structure, 5-10 mm,

Subangular blocky; Strong grade of structure, <2 mm, Subangular blocky; Weak consistence;

0.3 - 0.38 m Reddish brown (5YR4/4-Moist); ; Fine sandy medium clay; Strong grade of structure, 5-10 mm,

 $Subangular\ blocky;\ Strong\ grade\ of\ structure,\ <2\ mm,\ Subangular\ blocky;\ Weak\ consistence;$ 

0.43 - 0.56 m Strong brown (7.5YR4/6-Moist); ; Clear, Wavy change to -

0.56 - 0.66 m

**Morphological Notes** 

On parent material (basalt):

## **Observation Notes**

0-15CM WORM ACTIVITY:43-56CM DECOMPOSED BASALT BLACK (MN) COATING ALONGALL FACES AND CRACKS:

## **Site Notes**

WELLINGTON

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Laboratory Test Results.												
Depth	рН	1:5 EC	Exchangeable Ca Mg		Cations K Na		Exchangeable CEC Acidity		ECEC		E	SP
m		dS/m				Cmol (+)/					Q	%
0 - 0.08	5.5A							34C				
0.08 - 0.15	5.2A		2.1H	1.45	0.48	0.31	26.4H 54E		į	58.3B		
0.15 - 0.3	5A							24.20	0			
0.3 - 0.38	5.2A		0.72H	0.78	0.27	0.28	25.2H 48.8E		į.	50.9B		
0.43 - 0.56	5.1A											
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Pa GV	rticle :	Size A	nalysis Silt	
m	%	%	mg/kg	%	%	%	Mg/m3	٥.		%	O.I.	Oluy
0 - 0.08		10.6D		0.128	0.71	14A						
0.08 - 0.15		7.8D		0.112	0.49	91A		3	7B	8	15	57
0.15 - 0.3		6.1D			0.40	-						
0.3 - 0.38		5D		0.109	0.33	34A		14	7B	11	16	56
0.43 - 0.56												
Depth	COLE		Gravimetric/Volumetric W							K sat		
m		Sat.	0.05 Bar 0.1 Bar 0.5 Bar g/g - m3/m3			1 Bar 3	5 Bar 15	Bar	mm/l	h	mm/h	
0 - 0.08 0 08 - 0 15												

0.08 - 0.15 0.15 - 0.3 0.3 - 0.38 0.43 - 0.56

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## **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

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\_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
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 Total nitrogen - semimicro Kjeldahl , automated colour

9A\_HCL Total element - P(%) - By boiling HCl

P10\_GRAV Gravel (%)

P10A1\_C Clay (%) - Pipette
P10A1\_CS Coarse sand (%) - Pipette
P10A1\_FS Fine sand (%) - Pipette
P10A1\_Z Silt (%) - Pipette