Project Name: BUR

Project Code: BUR Site ID: H92 Observation ID: 1

Agency Name: CSIRO Division of Soils (TAS)

**Site Information** 

Desc. By: J. Loveday Locality: On Elliott research station
Date Desc.: 17/03/54 Elevation: 183 metres

**Geology** 

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

 Geol. Ref.:
 No Data
 Substrate Material:
 Basalt

**Land Form** 

Rel/Slope Class:No DataPattern Type:Low hillsMorph. Type:Mid-slopeRelief:No DataElem. Type:HillslopeSlope Category:Gently inclinedSlope:8.8 %Aspect:No Data

Surface Soil Condition (dry):

**Erosion:** 

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/AAcidic Dystrophic Red FerrosolPrincipal Profile Form:Gn4.11ASC Confidence:Great Soil Group:Krasnozem

All necessary analytical data are available.

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

**Vegetation:** 

### **Surface Coarse Fragments:**

## **Profile Morphology**

0 - 0.1 m	Brown (7.5YR4/4-Moist); ; Clay loam; Moderate grade of structure, Granular; Weak consistence; 2-10%, Charcoal, coarse fragments; ManyDiffuse change to -
0.1 - 0.2 m	Dark reddish brown (5YR3/4-Moist); ; Heavy clay; Strong grade of structure, 2-5 mm, Granular; Weak consistence; Very few (0 - 2 %), Ferruginous, Coarse (6 - 20 mm), Concretions; Common, fine (1-2mm) roots; Diffuse change to -
0.2 - 0.3 m	Reddish brown (5YR4/4-Moist); ; Heavy clay; Strong grade of structure, 5-10 mm, Granular; Weak consistence; Very few $(0 - 2 \%)$ , Ferruginous, Coarse $(6 - 20 \text{ mm})$ , Concretions; Common, fine $(1\text{-}2\text{mm})$ roots; Diffuse change to -
0.3 - 0.43 m	Yellowish red (5YR4/6-Moist); ; Heavy clay; Strong grade of structure, Granular; Weak consistence; Common, fine (1-2mm) roots; Diffuse change to -
0.43 - 0.56 m	Yellowish red (5YR4/6-Moist); ; Heavy clay; Moderate grade of structure, Granular; Weak consistence; Few (2 - 10 %), Unidentified, Fine (0 - 2 mm), Concretions; Common, fine (1-2mm) roots; Diffuse change to -
0.58 - 0.74 m	Dark red (2.5YR3/6-Moist); ; Heavy clay; Moderate grade of structure, Granular; Weak consistence; Few (2 - 10 %), Unidentified, Medium (2 -6 mm), Concretions; Diffuse change to -
0.74 - 0.86 m	Red (2.5YR4/6-Moist); ; Heavy clay; Massive grade of structure; Weak consistence; Few (2 - 10 %), Unidentified, Medium (2 -6 mm), Concretions; Diffuse change to -
0.91 - 1.07 m	Yellowish red (5YR4/6-Moist); , 10YR64; Heavy clay; Massive grade of structure; Weak consistence; Diffuse change to -
1.17 - 1.32 m	Pale red (2.5YR6/2-Moist); , 5YR56; Heavy clay; Massive grade of structure; Weak consistence; 2-10%, Gravel, coarse fragments;
1.73 - 1.83 m	Light red (2.5YR6/6-Moist); , 2.5YR62; Heavy clay; Weak consistence; 2-10%, Gravel, coarse fragments;
2.23 - 2.36 m	Light red (2.5YR6/6-Moist); , N50; Heavy clay; Weak consistence;
3 - 3.12 m	Yellowish red (5YR5/6-Moist); , 2.5YR48; , 5YR81; Heavy clay; Weak consistence;

#### **Morphological Notes**

#### **Observation Notes**

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117-312CM MEALY CLAY:223-236CM RETAINING THE STRUCTURE OF BASALT:LAPOINYA SERIES:

# Site Notes

WELLINGTON

H92 Observation ID: 1

Project Name: BUR
Project Code: BUR Site ID: H9:
Agency Name: CSIRO Division of Soils (TAS)

Laboratory Test Results:												
Depth	pН	1:5 EC		hangeable Mg	Cations K	Na	Exchangeable Acidity	CEC		ECEC		ESP
m		dS/m				Cmol (+	)/kg					%
0 - 0.1	5.3H		7.8H	2.5	0.86	0.42	23.4H 39.8E			51.4B		
0.1 - 0.2	5.2H		4.5H	2.1	0.4	0.22	36.3E			43.5B		
0.2 - 0.3	4.7H		2.6H	1.3	0.24	0.32	20.8H 34.5E			39B		
0.3 - 0.43 0.43 - 0.56	4.9H 4.9H		1.3H	1	0.13	0.15	19.1H	220	;	33B		
							30.4E					
0.58 - 0.74 0.74 - 0.86	5H 5.4H		1.6H	1.1	0.11	0.13	26.5E	21.5	С	29.4B		
0.91 - 1.07	5.3H		0.5411	0.54	0.05	0.45	04.05			000		
1.17 - 1.32 1.73 - 1.83	5.2H 5H		0.54H	0.54	0.25	0.45	24.2E			26B		
2.23 - 2.36	5.1H											
3 - 3.12	4.9H											
Depth	CaCO3	Organic	Avail.	Total	Total	Total			rticle		Analysi	
m	%	C %	P mg/kg	P %	N %	K %	Density Mg/m3	G۷	cs	FS %	Silt	Clay
			0.0				J					
0 - 0.1		6.9F 5.1D		0.109D 0.49		97A		0	1B	6	14	65
0.1 - 0.2		5.4F		0.077	0.35	55A						
0.2 - 0.3		4.1D 4.3F		0.068	0.26	86A		0	<1B	4	10	79
		3.1D		0.0002				Ū	1,5		10	, 0
0.3 - 0.43		3.5F 2.6D			0.20	)8A						
0.43 - 0.56		2.3F		0.049	0.13	88A		0	1B	4	12	85
0.58 - 0.74		1.7D										
0.74 - 0.86		0.5D		0.026	0.03	86A						
0.91 - 1.07												
1.17 - 1.32 1.73 - 1.83												
2.23 - 2.36												
3 - 3.12												
Depth	COLE		Gravimetric/Volumetric Water Contents							at	K unsa	t
m		Sat.	0.05 Bar		0.5 Bar g - m3/m	1 Bar 3	5 Bar 15	Bar	mm	/h	mm/h	
0 - 0.1												

0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.43 0.43 - 0.56 0.58 - 0.74 0.74 - 0.86 0.91 - 1.07 1.17 - 1.32 1.73 - 1.83

Project Name: Project Code: Agency Name: BUR

BUR Site ID: H9: CSIRO Division of Soils (TAS) H92 Observation ID: 1

2.23 - 2.36 3 - 3.12

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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

Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble 5E1\_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 5E1\_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 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 (%)

2\_LOI Loss on Ignition (%)
2A1 Air-dry moisture content
4\_NR pH of soil - Not recorded

5A2 Chloride - 1:5 soil/water extract, automated colour

6\_DC Organic carbon (%) - Dry combustion

6A1\_UC Organic carbon (%) - Uncorrected Walkley and Black method TA2 Total nitrogen - semimicro Kjeldahl , automated colour

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

XRD\_C\_Ch2 Chloritized 2:1 minerals - X-Ray Diffraction

XRD\_C\_Gt Geothite - X-Ray Diffraction
XRD\_C\_Ka Kaolin - X-Ray Diffraction
XRD\_C\_Qz Quartz - X-Ray Diffraction