Project Name: BUR

Project Code: BUR Site ID: H94 Observation ID: 1

Agency Name: CSIRO Division of Soils (TAS)

**Site Information** 

Desc. By: J. Loveday Locality: 5.7km NW from Wynard:

 Date Desc.:
 19/03/54
 Elevation:
 85 metres

 Map Ref.:
 Sheet No.: 8016
 1:100000
 Rainfall:
 1010

Northing/Long.: 145.670833333333 Runoff: Moderately rapid Easting/Lat.: -40.9625 Drainage: Well drained

**Geology** 

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

Geol. Ref.: No Data Substrate Material: Basalt

**Land Form** 

Rel/Slope Class:Undulating hills 90-300m 3-Pattern Type:HillsMorph. Type:No DataRelief:No DataElem. Type:HillslopeSlope Category:No DataSlope:7 %Aspect:No Data

Surface Soil Condition (dry):

**Erosion:** 

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/AHumose-Acidic Mesotrophic 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 - 0.08 m Dark reddish brown (5YR3/4-Moist); ; Clay loam; Strong grade of structure, <2 mm, Granular;

Weak consistence; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Concretions;

CommonDiffuse change to -

0.08 - 0.18 m Reddish brown (5YR4/4-Moist); ; Clay loam (Heavy); Strong grade of structure, <2 mm, Granular;

Weak consistence; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Concretions;

CommonSharp change to -

0.18 - 0.33 m Yellowish red (5YR3/6-Moist); ; Heavy clay; Strong grade of structure, <2 mm, Granular; Weak

consistence; FewDiffuse change to -

0.33 - 0.43 m Dark red (2.5YR3/6-Moist); ; Heavy clay; Moderate grade of structure, 5-10 mm, Granular; Weak

consistence; FewDiffuse change to -

0.43 - 0.56 m Dark red (2.5YR3/6-Moist); ; Heavy clay; Weak grade of structure, 5-10 mm, Granular; Strong

consistence; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions; FewDiffuse change

to -

0.56 - 0.71 m Dark red (2.5YR3/6-Moist); ; Heavy clay; Massive grade of structure; Strong consistence; Very

few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions; FewDiffuse change to -

0.79 - 0.94 m Dark red (2.5YR3/6-Moist); ; Heavy clay; Massive grade of structure; Very firm consistence; Very

few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions; Diffuse change to -

0.96 - 1.12 m Dark red (2.5YR3/6-Moist); ; Heavy clay; Massive grade of structure; Very firm consistence; 2-

10%, Charcoal, coarse fragments; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions;

Diffuse change to -

1.17 - 1.29 m Red (2.5YR4/6-Moist); ; Heavy clay; Massive grade of structure; Firm consistence; 10-20%,

Basalt, coarse fragments; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), ;

1.55 - 1.65 m Dark red (2.5YR3/6-Moist); ; Heavy clay; Massive grade of structure; Weak consistence; 2-10%,

Basalt, coarse fragments; Few (2 - 10 %), Ferruginous, , ;

1.9 - 2.01 m Red (2.5YR4/8-Moist); ; Heavy clay; Massive grade of structure; Weak consistence;

2.44 - 2.59 m Yellowish brown (10YR5/6-Moist); , 2.5YR48; Heavy clay; Weak consistence;

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3.3 - 3.43 m Yellowish brown (10YR5/6-Moist); , 5YR54; Heavy clay; Weak consistence;

## **Morphological Notes**

## **Observation Notes**

244-343CM MEALY CLAY WITH >60% OF DECOMPOSED BASALT:BURNIE SERIES

## **Site Notes**

WELLINGTON

Observation ID: 1

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| Depth  | рН                   | 1:5 EC        |             | angeable   | Cations<br>K                        | Na        | Exchangeable<br>Acidity | CEC      |              | ECEC         | E                 | SP     |
|--|----------------------|---------------|-------------|------------|-------------------------------------|-----------|-------------------------|----------|--------------|--------------|-------------------|--------|
| m  |                      | dS/m          | Ca ii       | ''y        | N                                   | Cmol (    |                         |          |              |              | %                 | ,<br>D |
| 0 - 0.08<br>0.08 - 0.18  | 5.5A<br>5.3A         |               | 3.8H        | 1.8        | 0.41                                | 0.28      | 20.3H<br>40E            | 27.50    | С            | 46.3B        |                   |        |
| 0.18 - 0.33<br>0.33 - 0.43   | 5.2A<br>5.2A         |               | 2.8H        | 1.1        | 0.24                                | 0.29      | 15.8H<br>30.9E          | 23.50    | С            | 35.3B        |                   |        |
| 0.43 - 0.56<br>0.56 - 0.71   | 5.3A<br>5.3A         |               | 2.5H        | 1.4        | 0.26                                | 0.37      | 13.6H<br>26.8E          | 19C      | ;            | 31.3B        |                   |        |
| 0.79 - 0.94<br>0.96 - 1.12   | 5.4A<br>5.3A         |               |             |            |                                     |           | 20.00                   | 17.50    | С            |              |                   |        |
| 1.17 - 1.29  | 5.3A                 |               | 1.1H        | 1.2        | 0.45                                | 0.21      | 11.6H<br>21.6E          |          |              | 24.6B        |                   |        |
| 1.55 - 1.65<br>1.9 - 2.01<br>2.44 - 2.59   | 5.3A<br>5.3A<br>5.3A |               |             |            |                                     |           |                         |          |              |              |                   |        |
| 3.3 - 3.43   | 4.9A                 |               |             |            |                                     |           |                         |          |              |              |                   |        |
| Depth  | CaCO3                | Organic<br>C  | Avail.<br>P | Total<br>P | Total<br>N                          | Tota<br>K | I Bulk<br>Density       | Pa<br>GV | rticle<br>CS | Size A<br>FS | nalysis<br>Silt C | Clay   |
| m  | %                    | %             | mg/kg       | %          | %                                   | %         | Mg/m3                   |          |              | %            |                   | -      |
| 0 - 0.08   |                      | 6.9F<br>5.5D  |             | 0.193      | 0.5                                 | 54A       |                         |          |              |              |                   |        |
| 0.08 - 0.18  |                      | 4.9F<br>3.6D  |             | 0.197      | 0.30                                | 09A       |                         | 0        | 15B          | 11           | 25                | 42     |
| 0.18 - 0.33  |                      | 3.5F<br>2.5D  |             | 0.152      |                                     |           |                         |          |              |              |                   |        |
| 0.33 - 0.43  |                      | 2.8F<br>2D    |             | 0.1371     |                                     |           |                         | 0        | 1D           | 12           | 26                | 57     |
| 0.43 - 0.56  |                      | 2.2F<br>1.6D  |             | 0.450      | 0.16                                |           |                         | •        | 0.0          |              | 4.5               | 7.4    |
| 0.56 - 0.71  |                      | 1.6F<br>1.6D  |             | 0.1521     |                                     |           |                         | 0        | 2B           | 9            | 15                | 71     |
| 0.79 - 0.94  |                      | 0.96F<br>0.6D |             |            | 0.06                                | DOA       |                         |          |              |              |                   |        |
| 0.96 - 1.12<br>1.17 - 1.29<br>1.55 - 1.65<br>1.9 - 2.01<br>2.44 - 2.59<br>3.3 - 3.43 |                      |               |             | 0.046      | )                                   |           |                         | 37       | 2B           | 9            | 14                | 70     |
| Depth<br>m   | COLE                 | Sat.          |             | 0.1 Bar    | olumetric V<br>0.5 Bar<br>/g - m3/m | 1 Bar     |                         | Bar      | K sa         |              | ( unsat<br>mm/h   |        |

0 - 0.08 0.08 - 0.18 0.18 - 0.33 0.33 - 0.43 0.43 - 0.56

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**CSIRO** Division of Soils (TAS)

0.56 - 0.71 0.79 - 0.94 0.96 - 1.12 1.17 - 1.29 1.55 - 1.65 1.9 - 2.01 2.44 - 2.59 3.3 - 3.43

**Project Name: BUR** 

**Project Code: BUR** Observation ID: 1 Site ID: H94

**CSIRO Division of Soils (TAS) Agency Name:** 

## **Laboratory Analyses Completed for this profile**

Total element - Fe(%) - Total acid(HCI) extractable Fe 12\_HCL\_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 Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts 15E1\_K 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

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 15G\_C\_H1 15G1\_H Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen) 15J\_H

2\_LOI Loss on Ignition (%) 2A1 Air-dry moisture content pH of 1:5 soil/water suspension 4A1

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

6 DC

Organic carbon (%) - Dry combustion
Organic carbon (%) - Uncorrected Walkley and Black method 6A1\_UC 7A2 Total nitrogen - semimicro Kjeldahl, automated colour

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

P10\_GRAV Gravel (%)

P10\_PB\_C Clay (%) - Plummet balance

P10\_PB\_CS Coarse sand (%) - Plummet balance Fine sand (%) - Plummet balance Silt (%) - Plummet balance P10\_PB\_FS P10\_PB\_Z

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