Project Name: DER

Project Code: DER Site ID: H205 Observation ID: 1

Agency Name: CSIRO Division of Soils (TAS)

**Site Information** 

Desc. By: G.M. Dimmock Locality: On western side of Richmond H`way:4.85KM SSW of

Richmond on property "Lauderdale": 4.6M from fence

line:

**Date Desc.:** 14/12/60 **Elevation:** 21 metres

Map Ref.: Rainfall: 580

Northing/Long.: 147.41111111111 Runoff: Moderately rapid Easting/Lat.: -42.7763888888889 Drainage: Very poorly drained

Geology

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

Geol. Ref.: No Data Substrate Material: Auger boring, 1.4 m deep,Unconsolidated

material (unidentified)

**Land Form** 

Rel/Slope Class:No DataPattern Type:Terrace (alluvial)Morph. Type:No DataRelief:No DataElem. Type:No DataSlope Category:Very gently slopedSlope:0 %Aspect:No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/ABleached-Vertic Eutrophic Brown KurosolPrincipal Profile Form:Db2.41ASC Confidence:Great Soil Group:Soloth

Analytical data are incomplete but reasonable confidence.

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

Vegetation:

# **Surface Coarse Fragments:**

Profile Morphology									
A1	0 - 0.1 m	Very dark grey (10YR3/1-Moist); Grey (10YR5/1-Dry); ; Loamy sand; Massive grade of structure; Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Mudstone, coarse fragments; CommonDiffuse change to -							
A1	0.1 - 0.18 m	Very dark grey (10YR3/1-Moist); Grey (10YR5/1-Dry); ; Loamy sand; Massive grade of structure; Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Mudstone, coarse fragments; CommonSharp change to -							
A2sb	0.19 - 0.28 m	Dark grey (10YR4/1-Moist); Light grey (10YR7/1-Dry); ; Loamy sand; Massive grade of structure; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Dry; Strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Mudstone, coarse fragments;							
В	0.33 - 0.43 m	Dark greyish brown (2.5Y4/3-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moderately moist; Strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Mudstone, coarse fragments;							
В	0.2 - 0.36 m	Very dark grey (10YR3/1-Moist); , 2.5Y43; , 10YR44; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Dry; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Mudstone, coarse fragments; Diffuse change to -							
В	0.36 - 0.43 m	Dark greyish brown (2.5Y4/3-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Moderately moist; Strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Mudstone, coarse fragments; Sharp change to -							
	0.46 - 0.63 m	Dark greyish brown (2.5Y4/3-Moist); , 10YR44; , 10YR31; Heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Firm consistence; Slightly plastic; Normal plasticity; 2-10%, coarse gravelly, 20-60mm, rounded, Mudstone, coarse fragments; Sharp change to -							
	0.66 - 0.89 m	Olive (5Y5/3-Moist); , 5Y63; , 7.5YR58; Heavy clay; Massive grade of structure; Weak consistence; Slightly plastic; Normal plasticity; 20-50%, coarse gravelly, 20-60mm, rounded, Mudstone, coarse fragments; Sharp change to -							
	0.91 - 1.09 m	Olive grey (5Y5/2-Moist); , 10YR58; Sandy medium clay; Massive grade of structure; Weak consistence;							

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Olive (5Y5/3-Moist); ; Sandy medium clay; Weak consistence; 50-90%, cobbly, 60-200mm, rounded, Dolerite, coarse fragments; 1.32 - 1.42 m

# **Morphological Notes**

### **Observation Notes**

33-43CM 10YR31 COATING ON AGGREGATES:0-28CM <10% CHARCOAL ALSO:BLEACHEDA2 DEVELOPED IN CLAY DEPRESSIONS "ISLANDS":

### **Site Notes**

**HOBART** 

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Laboratory Test Results:													
Depth	рН	1:5 EC		hangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	E	CEC	ES	SP	
m		dS/m	-	9		Cmol (+)/kg					%		
0 - 0.1	4.9A	0.045A	4H	0.99		0.15	6.6H 9.6E		1	5B			
0.1 - 0.18	5.3A	0.027A	3.3H	0.94		0.18	6.3H 8.3E		12	2.8B			
0.19 - 0.28	5.8A	0.024A	1.3H	0.81		1.5	3.3H 4.9E		7	.3B			
0.33 - 0.43	5.2A	0.086A	1.8H	7.4		1	15H 18.5E		29	9.7B			
0.2 - 0.36	5.2A	0.06A	3.9H	7.1			14.4H 19.1E		3	1.5B			
0.36 - 0.43 0.46 - 0.63	5.1A 5.2A	0.086A 0.107A	1.9H	8.6		1.9	12.4H 15.4E		28.3B				
0.66 - 0.89 0.91 - 1.09 1.32 - 1.42	5.2A 5.4A 5.8A	0.134A 0.131A 0.196A					13.4L						
Depth m	CaCO3	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Pa GV	CS I	ize Ar =S %	nalysis Silt C	lay	
0 - 0.1 0.1 - 0.18 0.19 - 0.28 0.33 - 0.43 0.2 - 0.36 0.36 - 0.43 0.46 - 0.63 0.66 - 0.89 0.91 - 1.09 1.32 - 1.42		2.66D 2.07D 0.62D 0.6D 0.72D		0.016D 0.011D 0.004D	0.10 0.02	05A 28A 14A		18 2 1 1 4 <1	27B 30D 27D 13D 14D	50 48 48 32 30 38	10 11 12 6 7	8 8 11 46 47 39	
Depth m 0 - 0.1 0.1 - 0.18 0.19 - 0.28	COLE	Sat.	Grav 0.05 Bar	vimetric/Vol 0.1 Bar g/g	lumetric V 0.5 Bar g - m3/m3	1 Bar		I5 Bar	K sat		unsat mm/h		

0.1 - 0.18 0.19 - 0.28 0.33 - 0.43 0.2 - 0.36 0.36 - 0.43 0.46 - 0.63 0.66 - 0.89 0.91 - 1.09 1.32 - 1.42

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

15\_NR\_NA Exch. basic cations (Na++) - meq per 100g of soil - Not recorded

Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble 15E1\_CA 15E1\_MG 15E1\_NA 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 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

2\_LOI Loss on Ignition (%) 2A1 Air-dry moisture content 3A1 EC of 1:5 soil/water extract 4A1 pH of 1:5 soil/water suspension

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

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

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