Project Name: ESK
Project Code: ESK **Site ID:** H202 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: K.D. Nicholls
Locality: 5.7KM N of Evandale on property "Talisker":bank 5CH from site and 1.1CHN of road/bridge join:
Date Desc.: 08/06/60
Elevation: 38 metres
Map Ref.:
Rainfall: 700
Northing/Long.: 147.243055555556
Runoff: Slow
Easting/Lat.: -41.5216666666667
Drainage: Very poorly drained

Geology

ExposureType: Soil pit
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data
Substrate Material: Clay

Land Form

Rel/Slope Class: Level plain <9m <1%
Pattern Type: Flood plain
Morph. Type: Flat
Relief: No Data
Elem. Type: No Data
Slope Category: Very gently sloped
Slope: 0 %
Aspect: 0 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Haplic Self-Mulching Black Vertosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Ug5.16
Great Soil Group: Wiesenboden

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A	0 - 0.1 m	Black (10YR2/1-Moist); ; Heavy clay; Strong grade of structure, <2 mm, Granular; Wet; Weak consistence; Slightly plastic; Normal plasticity; Many, fine (1-2mm) roots; Diffuse change to -
	0.1 - 0.2 m	Black (10YR2/1-Moist); ; Heavy clay; Moderate grade of structure, 2-5 mm, Granular; Smooth-ped fabric; Weak consistence; Slightly plastic; Normal plasticity; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), Concretions; CommonDiffuse change to -
	0.2 - 0.3 m	Black (10YR2/1-Moist); , 10YR46; Heavy clay; Weak grade of structure, 2-5 mm, Granular; Smooth-ped fabric; Moderately plastic; Normal plasticity; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Concretions; FewDiffuse change to -
	0.3 - 0.51 m	Black (10YR2/1-Moist); ; Heavy clay; Massive grade of structure; Very few (0 - 2 %), Ferruginous, , Concretions; FewDiffuse change to -
	0.51 - 0.63 m	Black (10YR2/1-Moist); ; Heavy clay; Massive grade of structure; Few (2 - 10 %), Ferruginous, Coarse (6 - 20 mm), Concretions; FewDiffuse change to -
	0.63 - 0.79 m	Black (2.5Y2/1-Moist); ; Heavy clay; Massive grade of structure; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions; Diffuse change to -
	0.79 - 0.94 m	Black (2.5Y2/1-Moist); ; Heavy clay; Massive grade of structure; Slightly plastic; Normal plasticity; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions;
	0.94 - 1.19 m	Black (2.5Y2/1-Moist); ; Heavy clay; Medium, (5 - 10) mm crack; Slightly plastic; Normal plasticity; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions;
	1.19 - 1.29 m	Black (2.5Y2/1-Moist); , 10YR56; Heavy clay; Firm consistence; Few (2 - 10 %), Ferruginous, Fine (0 - 2 mm), Soft segregations;
	1.29 - 1.5 m	Black (2.5Y2/1-Moist); , 2.5Y44; , 10YR56; Heavy clay; Firm consistence;
	1.5 - 1.68 m	Olive brown (2.5Y4/4-Moist); , 2.5Y21; , 10YR56; Heavy clay; Very firm consistence;
	1.8 - 2.06 m	Olive brown (2.5Y4/4-Moist); , N80, 20-50% ; , 2.5YR58, 20-50% ; Heavy clay; Weak consistence;

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2.41 - 2.54 m	Olive brown (2.5Y4/4-Moist); , N80, 20-50% ; , 2.5YR58, 20-50% ; Heavy clay; Weak consistence; 10-20%, coarse gravelly, 20-60mm, rounded, Gravel, coarse fragments;

Morphological Notes

Observation Notes

30-63CM SLICKENSIDES PROMINENT:CRACKS CONTINUE BEYOND BOTTOM:>180CM R+BL IS SOFT MUDSTONE + FERRUGINOUS MATERIAL:

Site Notes

LONGFORD

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.1	6.1A	0.131A	29.7H	21.5	0.59	0.72	10H 19.2E		71.7B	
0.1 - 0.2	6.6A	0.054A	28.4H	25.4	0.3	0.68	5.4H 12.1E		66.9B	
0.2 - 0.3	6.7A	0.107A	27.2H	27.8	0.54	0.86	3.7H 9.3E		65.7B	
0.3 - 0.51	6.7A	0.11A								
0.51 - 0.63	7.5A	0.057A	22.2H	24.6	0.19	1.1	4.9E		53B	
0.63 - 0.79	7.7A	0.08A								
0.79 - 0.94	8.3A	0.685A	18.1H	20.5	0.19	1.4			40.2B	
0.94 - 1.19	8.3A	0.128A								
1.19 - 1.29	8A	0.193A	18H	19.6	0.39	1.8	2.9E		42.7B	
1.29 - 1.5	7.9A	0.235A								
1.5 - 1.68	7.7A	0.283A								
1.8 - 2.06	7.5A	0.298A								
2.41 - 2.54	7.6A	0.253A								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		5.2D		0.055D	0.524A			0	1B	10	15	62
0.1 - 0.2		3.7D		0.033D	0.365A			0	1B	8	14	70
0.2 - 0.3		2.7D		0.024D	0.248A			0	1B	8	14	72
0.3 - 0.51		2.9D			0.269A							
0.51 - 0.63		1.9D		0.017D	0.155A			0	2D	17	12	68
0.63 - 0.79		1.6D			0.115A							
0.79 - 0.94		1.3D			0.083A			0	3D	26	10	58
0.94 - 1.19												
1.19 - 1.29								0	4D	27	10	55
1.29 - 1.5												
1.5 - 1.68												
1.8 - 2.06												
2.41 - 2.54												

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 Bar	
m		g/g - m3/m3						mm/h	mm/h
0 - 0.1									
0.1 - 0.2									
0.2 - 0.3									
0.3 - 0.51									
0.51 - 0.63									
0.63 - 0.79									
0.79 - 0.94									
0.94 - 1.19									
1.19 - 1.29									
1.29 - 1.5									
1.5 - 1.68									
1.8 - 2.06									
2.41 - 2.54									

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Laboratory Analyses Completed for this profile

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
15G1_H	Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0
15J_H	Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)
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
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 (%)
P10_PB_C	Clay (%) - Plummet balance
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	Fine sand (%) - Pipette
P10A1_Z	Silt (%) - Pipette
XRD_C_Ka	Kaolin - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction
XRD_C_St	Smectite - X-Ray Diffraction