Project Name: ESK
Project Code: ESK **Site ID:** H203 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: K.D. Nicholls
Locality: 2.4KM SE of Evandale on property "Andora":2.95CH NE from Evandale/NileRoad:
Date Desc.: 09/06/60
Elevation: 169 metres
Map Ref.:
Rainfall: 640
Northing/Long.: 147.263888888889
Runoff: Slow
Easting/Lat.: -41.5861111111111
Drainage: Poorly drained

Geology

ExposureType: Soil pit
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data
Substrate Material: Detrital sedimentary rock (unidentified)

Land Form

Rel/Slope Class: No Data
Pattern Type: Terrace (alluvial)
Morph. Type: Simple-slope
Relief: No Data
Elem. Type: Bench
Slope Category: Very gently sloped
Slope: 0 %
Aspect: 0 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Bleached-Ferric Chomosolic Redoxic Hydrosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Dy3.41
Great Soil Group: Lateritic podzolic soil

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

Vegetation:

Surface Coarse Fragments: 2-10%, stony, 200-600mm, , Coal

Profile Morphology

A1	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); ; Sandy loam; Weak grade of structure, Granular; Wet; Very weak consistence; 10-20%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; ManyDiffuse change to -
A1	0.1 - 0.15 m	Brown (7.5YR4/2-Moist); ; Sandy loam (Light); Wet; Very weak consistence; 20-50%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; ManySharp change to -
A2	0.18 - 0.3 m	Greyish brown (10YR5/2-Moist); ; Sand; Single grain grade of structure; Wet; Loose consistence; 20-50%, coarse gravelly, 20-60mm, rounded, stratified, Quartz, coarse fragments; Very many (50 - 100 %), Ferruginous, Very coarse (20 - 60 mm), Concretions; Diffuse change to -
A2	0.3 - 0.53 m	Pale brown (10YR6/3-Moist); ; Sand; Single grain grade of structure; Wet; Loose consistence; 20-50%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Very many (50 - 100 %), Ferruginous, Very coarse (20 - 60 mm), Concretions; Sharp change to -
B	0.57 - 0.69 m	Light olive brown (2.5Y5/4-Moist); , 7.5YR56; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moist; Very firm consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; CommonDiffuse change to -
B	0.69 - 0.84 m	Greyish brown (2.5Y5/3-Moist); , 7.5YR56; Heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moist; Firm consistence; 2-10%, coarse gravelly, 20-60mm, Quartz, coarse fragments;
B	0.84 - 1.04 m	Yellowish brown (10YR5/6-Moist); , 2.5Y51; , 2.5YR46; Heavy clay; Massive grade of structure; Moist; Firm consistence; Slightly plastic; Normal plasticity; 10-20%, coarse gravelly, 20-60mm, Quartz, coarse fragments;
B	1.04 - 1.22 m	Grey (2.5Y6/1-Moist); , 7.5YR56; , 5YR46; Heavy clay; Massive grade of structure; Moist; Moderately plastic; Normal plasticity; 2-10%, coarse gravelly, 20-60mm, Quartz, coarse fragments;
	1.52 - 1.6 m	Grey (2.5Y6/1-Moist); , 10YR56; Heavy clay; Firm consistence; 2-10%, medium gravelly, 6-20mm, Quartz, coarse fragments; Few
	2.29 - 2.36 m	Olive (5Y5/3-Moist); , 10YR56; , 2.5YR58; Sandy medium clay; Firm consistence;

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3.38 - 3.48 m	Brownish yellow (10YR6/6-Moist); , 2.5Y72; Clayey sand; Weak consistence;
5.44 - 5.59 m	Pale olive (5Y6/4-Moist); , 7.5YR58; , 10YR56; Silty medium clay; Very plastic; Normal

Morphological Notes

Observation Notes

30-69CM SAMPLE TAKEN AROUND 230MM PUDDINGSTONE (QZ+FE CONGLOMERATE):MAJOR STRATIGRAPHIC BREAK AT 348CM:

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	5.8A	0.024A	3.3H	0.4	0.12	0.08	4.1H 6.9E		10.8B	
0.1 - 0.15	5.4A	0.021A	1.7H	0.3	0.06	0.07	3.1H 4.9E		7.03B	
0.18 - 0.3	5.6A	0.012A								
0.3 - 0.53	6A	0.006A	0.69H	0.11	0.04	0.05	0.3H 0.6E		1.49B	
0.57 - 0.69	6.4A	0.083A								
0.69 - 0.84	6.5A	0.08A	6.1H	12.3	0.34	1.4	3.4H 9.6E		29.7B	
0.84 - 1.04	6A	0.065A								
1.04 - 1.22	5.3A	0.08A								
1.52 - 1.6	5.5A	0.057A	1.7H	8.1	0.17	1.6	10.6H 14.8E		26.4B	
2.29 - 2.36	5.7A	0.039A								
3.38 - 3.48	5.8A	0.048A								
5.44 - 5.59	5.2A	0.369A								

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		2.2D		0.014D	0.184A			16	25B	53	11	7
0.1 - 0.15		1.1D		0.008D	0.09A			44	30D	50	12	7
0.18 - 0.3												
0.3 - 0.53		0.21D		0.004D	0.018A			82	47D	41	8	6
0.57 - 0.69		0.97D			0.089A							
0.69 - 0.84		0.63D		0.008D	0.061A			9	4D	6	3	89
0.84 - 1.04												
1.04 - 1.22												
1.52 - 1.6								3	11D	22	4	61
2.29 - 2.36												
3.38 - 3.48												
5.44 - 5.59												

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 - 0.15									
0.18 - 0.3									
0.3 - 0.53									
0.57 - 0.69									
0.69 - 0.84									
0.84 - 1.04									
1.04 - 1.22									
1.52 - 1.6									
2.29 - 2.36									
3.38 - 3.48									
5.44 - 5.59									

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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_Ch2	Chloritized 2:1 minerals - X-Ray Diffraction
XRD_C_Gt	Geothite - X-Ray Diffraction
XRD_C_Il	Illite - X-Ray Diffraction
XRD_C_Is	Interstratified clay minerals - X-Ray Diffraction
XRD_C_Ka	Kaolin - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction