Project Name: TYE
Project Code: TYE **Site ID:** H207 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: G.M. Dimmock
Locality: Approx 1.6KM SE of Plenty Railway Station on property "Redlands":44M (ON 42degrees) off new Norfolk Road:
Date Desc.: 22/12/60
Elevation: 23 metres
Map Ref.:
Rainfall: 530
Northing/Long.: 146.968888888889
Runoff: Slow
Easting/Lat.: -42.75
Drainage: Poorly drained

Geology

ExposureType: Soil pit
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data
Substrate Material: Auger boring, 1.2 m deep,Dolerite

Land Form

Rel/Slope Class: No Data
Pattern Type: Terrace (alluvial)
Morph. Type: Flat
Relief: No Data
Elem. Type: No Data
Slope Category: Level
Slope: 0 %
Aspect: No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Eutrophic Mottled-Subnatric Brown Sodosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Db2.42
Great Soil Group: Solodized solonetz

Site Disturbance: Complete clearing. Pasture, native or improved, but never cultivated

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.1 m	Very dark grey (10YR3/1-Moist); Grey (10YR5/1-Dry); ; Sandy loam; Weak grade of structure, 5-10 mm, Granular; Dry; Very weak consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Abundant, fine (1-2mm) roots;
A1	0.1 - 0.15 m	Very dark grey (10YR3/1-Moist); Grey (10YR5/1-Dry); ; Sandy loam; Weak grade of structure, 5-10 mm, Granular; Dry; Very weak consistence; Many, fine (1-2mm) roots; Abrupt change to -
A2	0.16 - 0.23 m	Light brownish grey (10YR6/2-Dry); , 10YR71; Sandy loam (Light); Massive grade of structure; Dry; Weak consistence; Common, fine (1-2mm) roots; Gradual change to -
A2	0.23 - 0.3 m	Light grey (10YR7/1-Moist); , 10YR62; Loamy sand; Massive grade of structure; Dry; Weak consistence; 10-20%, coarse gravelly, 20-60mm, rounded, Gravel, coarse fragments; Common, fine (1-2mm) roots; Abrupt, Wavy change to -
B	0.3 - 0.43 m	Dark yellowish brown (10YR4/4-Moist); , 10YR31; , 10YR58; Heavy clay; Strong grade of structure, 20-50 mm, Columnar; Strong grade of structure, 20-50 mm, Angular blocky; Fine, (0 - 5) mm crack; Dry; Rigid consistence; 10-20%, coarse gravelly, 20-60mm, rounded, stratified, Gravel, coarse fragments; Few, fine (1-2mm) roots; Gradual change to -
B	0.41 - 0.57 m	Very dark greyish brown (2.5Y3/2-Moist); , 2.5Y44; Heavy clay; Strong grade of structure, 20-50 mm, Columnar; Strong grade of structure, 20-50 mm, Angular blocky; Dry; Rigid consistence; 2-10%, medium gravelly, 6-20mm, rounded, Dolerite, coarse fragments; Few, fine (1-2mm) roots;
BC	0.63 - 0.81 m	Very dark greyish brown (2.5Y3/2-Moist); , 2.5Y44; , N80; Heavy clay; Weak grade of structure, 20-50 mm, Columnar; Moderately moist; Very strong consistence; 2-10%, fine gravelly, 2-6mm, Dolerite, coarse fragments; Clear change to -
	0.81 - 0.96 m	Olive brown (2.5Y4/4-Moist); , N80, 2-10% ; , 2-10% ; Sandy medium clay; Massive grade of structure; Very firm consistence; 20-50%, cobbly, 60-200mm, rounded, Dolerite, coarse fragments; Few (2 - 10 %), Unidentified, , Concretions;
C	1.07 - 1.14 m	Light olive brown (2.5Y5/6-Moist); ; Sandy light clay; Moist; Weak consistence; 50-90%, cobbly, 60-200mm, rounded, Dolerite, coarse fragments;

Morphological Notes

Observation Notes

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Site Notes
ELLENDALE

TOP OF CLAY DOMED WITH THIN SKIN OF VLG/BLEACHED A2 (SOME SILICEOUS GV EMBEDDED IN TOP OF CLAY):

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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	5.3A	0.083A	3.4H	0.88	0.21	0.19	5.6H 8.5E		13.2B	
0.1 - 0.15	5.3A	0.045A	1.9H	0.56	0.11	0.15	4.2H 6E		8.7B	
0.16 - 0.23	5.4A	0.03A								
0.23 - 0.3	5.6A	0.033A								
0.3 - 0.41	6.5A	0.173A	9.5H	14.3	0.34	2.7	8.4E		35.2B	
0.41 - 0.57	7.4A	0.244A	9.6H	17.7	0.36	3.5	4.4E		35.6B	
0.63 - 0.81	8A	0.375A								
0.81 - 0.96	8A	0.61A	8.5H	17.8	0.32	7	1.8E		35.4B	
1.07 - 1.14	8A	0.545A								

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		2.87D		0.013D	0.236A			0	19B	57	10	8
0.1 - 0.15		1.59D		0.008D	0.124A			0	17D	61	17	2
0.16 - 0.23		0.8D			0.064A							
0.23 - 0.3		0.49D			0.042A							
0.3 - 0.41		1.51D			0.131A			11	8D	25	7	59
0.41 - 0.57		1D			0.102A			1	7D	22	5	64
0.63 - 0.81												
0.81 - 0.96								31	12B	25	18	38
1.07 - 1.14												

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										
0.16 - 0.23										
0.23 - 0.3										
0.3 - 0.41										
0.41 - 0.57										
0.63 - 0.81										
0.81 - 0.96										
1.07 - 1.14										

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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
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