Project Name: STM

Project Code: STM Site ID: H54 Observation ID: 1

Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: J. Loveday Locality: Position marked on detailed soil map Cornwall map

1C:

335 metres Date Desc.: 22/03/53 Elevation: Map Ref.: Sheet No.: 8514 1:100000 Rainfall: 790 Northing/Long.: 148.033333333333 Runoff: Rapid Easting/Lat.: -41.5666666666667 Drainage: Poorly drained

Geology

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

 Geol. Ref.:
 No Data
 Substrate Material:
 Dolerite

Land Form

Rel/Slope Class:Undulating rises 9-30m 3-10%Pattern Type:RisesMorph. Type:RidgeRelief:No DataElem. Type:HillslopeSlope Category:Gently inclinedSlope:0 %Aspect:No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/AHaplic Eutrophic Brown DermosolPrincipal Profile Form:Dy3.13ASC Confidence:Great Soil Group:Grey-brownAll necessary analytical data are available.podzolic soil

Site Disturbance: Limited clearing, for example selective logging

Vegetation:

Tall Strata - Tree, 12.01-20m, Sparse. *Species includes - None Recorded

Surface Coarse Fragments:

<u>Profile</u>	<u>Morphology</u>	
A1	0 - 0.08 m	Greyish brown (10YR5/2-Moist); ; Fine sandy loam; Moderate grade of structure, Granular; Very weak consistence; 20-50%, cobbly, 60-200mm, angular, Dolerite, coarse fragments; Many, medium (2-5mm) roots; Diffuse change to -
AB	0.08 - 0.15 m	Greyish brown (10YR5/2-Moist); ; Clay loam; Weak grade of structure, 2-5 mm, Granular; Dry; Very firm consistence; 2-10%, Dolerite, coarse fragments; Common, fine (1-2mm) roots; Diffuse change to -
AB	0.15 - 0.23 m	Greyish brown (10YR5/2-Moist); , 10YR32; Clay loam (Heavy); Weak grade of structure, 5-10 mm, Granular; Dry; Very strong consistence; 0-2%, Dolerite, coarse fragments; Diffuse change to -
В	0.23 - 0.3 m	Dark greyish brown (10YR4/2-Moist); , 2.5Y54; Medium clay; Moderate grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 10-20 mm, Angular blocky; Rigid consistence; 2-10%, Dolerite, coarse fragments; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions; Diffuse change to -
В	0.3 - 0.5 m	Light olive brown (2.5Y5/4-Moist); ; Medium clay; Moderate grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 10-20 mm, Angular blocky; Moderately moist; Rigid consistence; 2-10%, Dolerite, coarse fragments; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), ; Diffuse change to -
ВС	0.61 - 0.74 m	Light olive brown (2.5Y5/4-Moist); , 10YR32; Medium clay; Moist; Very firm consistence; 2-10%, Dolerite, coarse fragments; Diffuse change to -
С	0.79 - 0.94 m	Light brownish grey (2.5Y6/2-Moist); , 10YR64; Medium clay; Moist; Very firm consistence; 20-50%, stony, 200-600mm, Dolerite, coarse fragments;

Olive yellow (2.5Y6/8-Moist); ; Moist; Very firm consistence; 10-20%, Dolerite, coarse fragments;

Morphological Notes

1.04 - 1.12 m

Observation Notes

Site Notes

С

CORNWALL

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Laboratory Test Results:

Depth	рН	1:5 EC		nangeable //g	Cations K		exchangeable Acidity	CEC		ECEC	ESP
m		dS/m	Ca r	иg		Na Cmol (+)					%
0 - 0.08	5.6A		15H	6.5	1.07	0.39	10H 17.7E	30.5	С	40.7B	1.28
0.08 - 0.15	5.8A						17.7	26.8	С		
0.15 - 0.23	6.1A		40.411	04.0	0.00	4.40	0.511	48.5	^	40 74D	0.00
0.23 - 0.3	6.6A	6.6A 18.1H 21.8 0.38 1.1		1.13	2.5H 7.3E	C .	48.71B	2.33			
0.3 - 0.5 6.9A								75C	;		
0.61 - 0.74	7.9A										
0.79 - 0.94	8.6A										
1.04 - 1.12	9.1A										
Depth m	CaCO3	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Pa GV	rticle CS	Size Ai FS %	nalysis Silt Clay
0 - 0.08		6.37D		0.021[0.62	21A		1	5B	34	24 24
0.08 - 0.15		2.17D		0.007[0.22	23A					
0.15 - 0.23		1.42D			0.14	I4A					
0.23 - 0.3		0.97D		0.003[0.10)2A		3	3B	26	19 51
0.3 - 0.5		0.42D									
0.61 - 0.74											
0.79 - 0.94	0.07A	١									
1.04 - 1.12	0.25A	١									
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 - 0.08 0.08 - 0.15 0.15 - 0.23 0.23 - 0.3 0.3 - 0.5 0.61 - 0.74 0.79 - 0.94 1.04 - 1.12

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Laboratory Analyses Completed for this profile

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
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)

19A1 Carbonates - rapid titration
2_LOI Loss on Ignition (%)
2A1 Air-dry moisture content
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 Total nitrogen - semimicro Kjeldahl , automated colour

9A_HCL Total element - P(%) - By boiling HCl

P10_GRAV Gravel (%) P10A1_C Clay (%) - Pipette

P10A1_CS Coarse sand (%) - Pipette
P10A1_FS Fine sand (%) - Pipette
P10A1_Z Silt (%) - Pipette