Project Name: STM
Project Code: STM **Site ID:** H49 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By:	C.G. Stephens	**Locality:**	
Date Desc.:	22/01/53	**Elevation:**	274 metres
Map Ref.:	Sheet No. : 8514 1:100000	**Rainfall:**	790
Northing/Long.:	148.033333333333	**Runoff:**	Rapid
Easting/Lat.:	-41.5666666666667	**Drainage:**	Imperfectly drained

Geology

ExposureType:	Soil pit	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	No Data	**Substrate Material:**	Unconsolidated material (unidentified)

Land Form

Rel/Slope Class:	Undulating plains <9m 3-10%	**Pattern Type:**	Terrace (alluvial)
Morph. Type:	No Data	**Relief:**	No Data
Elem. Type:	Plain	**Slope Category:**	Gently inclined
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: Dy3.41
Great Soil Group: Gleyed podzolic soil

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

Vegetation: Low Strata - Sod grass, <0.25m, Closed or dense. *Species includes - Medicago sativa
Tall Strata - Tree, 6.01-12m, Isolated plants. *Species includes - Eucalyptus ovata

Surface Coarse Fragments: 0-2%, , subrounded, Dolerite

Profile Morphology

A11	0 - 0.064 m	Greyish brown (10YR5/2-Moist); ; Fine sandy loam; Weak consistence; 2-10%, coarse gravelly, 20-60mm, Dolerite, coarse fragments; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), Concretions; AbundantDiffuse change to -
A12	0.064 - 0.13 m	Greyish brown (10YR5/2-Moist); , 10YR71; Fine sandy loam (Light); Firm consistence; 2-10%, coarse gravelly, 20-60mm, Dolerite, coarse fragments; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), Concretions; Diffuse change to -
A21	0.14 - 0.22 m	Light grey (10YR7/2-Moist); ; Loamy sand; Firm consistence; 2-10%, Dolerite, coarse fragments; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), Concretions; Diffuse change to -
A22	0.22 - 0.3 m	Light grey (10YR7/2-Moist); ; Loamy sand; Firm consistence; 2-10%, Dolerite, coarse fragments; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Concretions; Sharp change to -
B1	0.32 - 0.43 m	Yellowish brown (10YR5/4-Moist); , 10YR58; Heavy clay; Fine, (0 - 5) mm crack; Very firm consistence; 2-10%, Dolerite, coarse fragments; Common (10 - 20 %), Ferruginous, Medium (2 - 6 mm), Concretions; Diffuse change to -
B1	0.43 - 0.56 m	Yellowish brown (10YR5/8-Moist); , 5Y62; Heavy clay; Massive grade of structure; Moist; 2-10%, rounded, Quartz, coarse fragments; Few (2 - 10 %), Ferruginous, , Concretions; Diffuse change to -
B1g	0.56 - 0.71 m	Yellowish brown (10YR5/8-Moist); , 5Y62; Heavy clay; Massive grade of structure; Moist; 0-2%, rounded, Quartz, coarse fragments; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions; Diffuse change to -
B1g	0.71 - 0.91 m	Yellowish brown (10YR5/6-Moist); , 5Y62; Heavy clay; Massive grade of structure; Moist; 0-2%, rounded, Quartz, coarse fragments; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Concretions; Diffuse change to -
	0.94 - 1.17 m	Yellowish brown (10YR5/6-Moist); , 5Y62; Heavy clay; Massive grade of structure; 0-2%, rounded, Gravel, coarse fragments; Diffuse change to -
C	1.22 - 1.4 m	Yellowish brown (10YR5/6-Moist); , 5Y62; Heavy clay; Massive grade of structure; Moist; 10-20%, rounded, Gravel, coarse fragments;

Morphological Notes

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Observation Notes

32-43CM WEAKLY DEVELOPED VERTICAL CLEAVAGE FACES:14-30CM QUARTZITE COARSE FRACTION ALSO:122-140CM MEALY CLAY: FRODSLEY SERIES:

Site Notes

CORNWALL

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations Ca	Mg	K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m	Cmol (+)/kg							%
0 - 0.064	5.5A		3.1H	1.2	0.18	0.19	5H 8.7E		13.37B	
0.064 - 0.13	5.4A		2.5H	0.12	0.08	0.17		6.5C		2.62
0.14 - 0.22	5.6A		1.7H	0.6	0.07	0.06	1.9H 3.8E	5.3C	6.23B	1.13
0.22 - 0.3	5.5A		1.3H	0.55	0.04	0.13		3.8C		3.42
0.32 - 0.43	5.7A		4.5H	7.5	0.22	1.3	11.4H 17.6E	28.8C	27.7B	4.51
0.43 - 0.56	5.5A		3H	7.8	0.23	1.3	17.6E		29.95B	
0.56 - 0.71	5.7A		1.1H	10.5	0.18	1.5				
0.71 - 0.91	5.7A		1.2H	9.3	0.18	1.2		31.4C		3.82
0.94 - 1.17	5.7A		0.95H	7.8	0.19	1.2				
1.22 - 1.4	5.6A		0.63H	9.1	0.21	1.8	11.7H 14.7E		26.4B	

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 - 0.064		2.44D		0.007D	0.225A			9	17B	51	18	9
0.064 - 0.13		1.14D		0.004D	0.104A							
0.14 - 0.22		0.54D			0.052A							
0.22 - 0.3		0.24D						40	24B	47	19	10
0.32 - 0.43		0.44D		0.003D	0.045A			6	9B	22	10	58
0.43 - 0.56												
0.56 - 0.71												
0.71 - 0.91								2	10B	22	16	52
0.94 - 1.17												
1.22 - 1.4												

Depth	COLE	Gravimetric/Volumetric Water Contents Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	K sat	K unsat
m		g/g - m3/m3							mm/h	mm/h
0 - 0.064										
0.064 - 0.13										
0.14 - 0.22										
0.22 - 0.3										
0.32 - 0.43										
0.43 - 0.56										
0.56 - 0.71										
0.71 - 0.91										
0.94 - 1.17										
1.22 - 1.4										

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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)
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
7A2	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