

Project Name: SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania
Project Code: SCEAM **Site ID:** N44 **Observation ID:** 1
Agency Name: TAS Department of Primary Industries and Fisheries

Site Information

Desc. By:	H. Hawkins	Locality:	St Mathias Vineyard, Roseveares
Date Desc.:	05/06/06	Elevation:	48 metres
Map Ref.:	GPS S.A. Off	Rainfall:	797
Northing/Long.:	5423621 AMG zone: 55	Runoff:	Moderately rapid
Easting/Lat.:	501227 Datum: GDA94	Drainage:	Imperfectly drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	Soil pit, 0.9 m deep,Dolerite

Landform

Rel/Slope Class:	Rolling low hills 30-90m 10-32%	Pattern Type:	Hills
Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	Moderately inclined
Slope:	23 %	Aspect:	324 degrees

Surface Soil Condition Firm

Erosion

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Haplic Mesotrophic Brown Ferrosol Medium Moderately gravelly Clay-loamy Clayey Moderately deep	Principal Profile Form:	Dy4.11
ASC Confidence:	Great Soil Group:	N/A
All necessary analytical data are available.		

Site Disturbance

Vegetation

Surface Coarse Fragments No surface coarse fragments

Profile Morphology

A1	0 - 0.25 m	(/-Moist); , 0-0% ; Clay loam; Strong grade of structure, 10-20 mm, Subangular blocky; Moderate grade of structure, 2-5 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Weak consistence; Slightly plastic; Normal plasticity; Slightly sticky; 20-50%, cobbly, 60-200mm, subrounded, dispersed, Dolerite, coarse fragments; 20-50%, medium gravelly, 6-20mm, subrounded, Dolerite, coarse fragments; Few, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Abrupt, Irregular change to -
B2	0.25 - 0.57 m	Strong brown (7.5YR5/6-Moist); Mechanical, 7.5YR32, 2-10% , 15-30mm, Distinct; Medium clay; Weak grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Moist; Firm consistence; Very plastic; Normal plasticity; Moderately sticky; 20-50%, cobbly, 60-200mm, subrounded, dispersed, Dolerite, coarse fragments; 20-50%, cobbly, 60-200mm, subrounded, dispersed, Dolerite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Irregular change to -
BC	0.57 - 0.9 m	Brown (7.5YR4/4-Moist); Substrate influence, 10YR76, 20-50% , 5-15mm, Distinct; Light clay; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Moderately moist; Strong consistence; Slightly plastic; Normal plasticity; Very sticky; 20-50%, cobbly, 60-200mm, subrounded, dispersed, Dolerite, coarse fragments; 20-50%, medium gravelly, 6-20mm, subrounded, dispersed, fragments; 90-100%, medium gravelly, 6-20mm, angular, dispersed, Dolerite, coarse fragments;

Morphological Notes

B2 Clay skins coated Ped Faces. N44C 32-50

BC

N44D 60-90cm

Observation Notes

Substrate at a depth greater than 90cm.

Site Notes

Mode of Geomorphic Activity: Eroded. Agent: Sheet Wash. No inundation

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Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.075	5.9C 6.5A	0.081A	21.76A	8.9	1.45	0.22	0.03D 0G 0.06A		32.39B	
0.125 - 0.2	5.6C 6.4A	0.062A	15.82A	7.19	0.89	0.22	0.03D 0G 0.05A		24.17B	
0.32 - 0.5	5.7C 6.8A	0.078A	14.44A	21.47	0.34	0.73	0.03D 0G 0.05A		37.03B	
0.6 - 0.9	6.1C 7.3A	0.084A	14.45A	24.88	0.32	1.6	0.02D 0G 0.03A		41.28B	

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV	Size CS	Analysis FS	Silt
0 - 0.075		3.66B	87H 29.8I		0.43D						
0.125 - 0.2		3.06B	29H 11.5I		0.34D						
0.32 - 0.5		0.82B	3H 0.8I		0.11D						
0.6 - 0.9		0.49B	3H 1I		0.08D						

Laboratory Analyses Completed for this profile

10B_NR	Extractable sulfur (mg/kg) - Not recorded
12_NR_FE	Total element - Fe(%) - Not recorded
12A1_CU	DTPA - extractable copper, zinc, manganese and iron
12A1_FE	DTPA - extractable copper, zinc, manganese and iron
12A1_MN	DTPA - extractable copper, zinc, manganese and iron
12A1_ZN	DTPA - extractable copper, zinc, manganese and iron
12C1	Calcium chloride extractable boron - manual colour
15_NR_AL	Aluminium Cation - meq per 100g of soil - Not recorded
15_NR_H	Hydrogen Cation - meq per 100g of soil - Not recorded
15A1_CA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_K for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_NA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15G_C_AL2 By AAS	Exchangeable aluminium - meq per 100g of soil - Aluminium By KCl extraction and detremination

15G1	Exchange acidity (hydrogen and aluminium) by 1M potassium chloride
15J_H	Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)
15N1	Exchangeable sodium percentage (ESP)
18A1	Bicarbonate-extractable potassium
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension

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4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
6B2	Total organic carbon - high frequency induction furnace, volumetric
7A5	Total nitrogen - high frequency induction furnace, thermal conductivity
7C1a	Ammonium-N, in presence or absence of nitrite
7C1b	(Nitrate+nitrite)-N, in presence of nitrite
9B2_COL	Bicarbonate-extractable phosphorus - automated colour. Based on Colwell (1965). Method no
longer	
	recommended
9C2	Olsen-extractable phosphorus - automated colour