**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania

**Project Code:** Site ID: **SCEAM S24** Observation ID: 1

Agency Name: **TAS Department of Primary Industries and Fisheries** 

Site Information

Desc. By: D.B. Kidd Locality: Curringa, Hamilton Date Desc.: 15/09/05 Elevation: 139 metres Map Ref.: GPS S.A. Off Rainfall: 548 Northing/Long.: 5287723 AMG zone: 55 Runoff: No Data 482388 Datum: GDA94 Drainage: No Data Easting/Lat.:

Geology

ExposureType: Soil pit Conf. Sub. is Parent. Mat.: No Data Geol. Ref.: No Data **Substrate Material:** No Data

<u>Landform</u>

Rel/Slope Class: Rolling hills 90-300m 10-32% Pattern Type: Hills Morph. Type: Relief. No Data Upper-slope Elem. Type: Hillslope Slope Category: Steep Slope: 37 % Aspect: 48 degrees

Surface Soil Condition Soft

Partial, Minor (sheet) **Erosion** 

Soil Classification

Australian Soil Classification: Mapping Unit: N/A Basic Paralithic Leptic Rudosol Slightly gravelly Loamy Shallow **Principal Profile Form:** N/A

N/A ASC Confidence: **Great Soil Group:** 

Analytical data are incomplete but reasonable confidence.

Site Disturbance

**Vegetation** 

**Surface Coarse Fragments** 2-10%, cobbly, 60-200mm, , Dolerite

**Profile Morphology** 

Α1 0 - 0.22 m Dark reddish brown (5YR2.5/2-Moist); , 0-0%; Loam; Moderate grade of structure, 5-10

mm,

Subangular blocky; Moderate grade of structure, 2-5 mm, Subangular blocky; Earthy

fabric; Few (<1 per

100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence;

Slightly plastic;

Normal plasticity; Non-sticky; 0-2%, cobbly, 60-200mm, subrounded, dispersed, Dolerite,

coarse

fragments; Common, very fine (0-1mm) roots; Clear, Smooth change to -

R2 0.22 - 0.4 m

Medium clay;

Yellow (10YR7/6-Moist); Substrate influence, 5YR34, 10-20%, 15-30mm, Distinct;

Massive grade of structure; Moderately moist; Very firm consistence; 0-2%, cobbly, 60-

Coarse (6 - 20

200mm,

subrounded, dispersed, Dolerite, coarse fragments; Common (10 - 20 %), Calcareous,

very fine (0-

mm), Soft segregations; Other pans, Moderately cemented, Continuous, Vesicular; Few,

1mm) roots; Gradual, Smooth change to -

0.4 - 0.42 m

Massive grade

Yellow (10YR7/6-Moist); Substrate influence, 10-20%, 15-30mm, Distinct; Medium clay;

of structure; Moderately moist; Very firm consistence; 0-2%, cobbly, 60-200mm,

subrounded, dispersed,

Dolerite, coarse fragments; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Soft

segregations;

**Morphological Notes** 

S24C sampled 0-20cm S24D sampled 22-40cm B2

**Observation Notes** 

Substrate weathered DR

Site Notes

Geomorphic Activity: Erosion, agent: sheet wash.

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## **Laboratory Test Results:**

Depth	рН	1:5 EC	E) Ca	changeabl Mg	le Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m		J		Cmol	(+)/kg			%
0 - 0.075	5.4C 6.3A	0.054A	17.81A	5.24	0.28	0.37	0.12D 0G 0.14A		23.84B	
0.1 - 0.2	5.8C 6.3A	0.045A	19.56A	6.23	0.14	0.31	0.028725D 0G 0.038725A		26.27872B	
0.22 - 0.4	6.1C 6.5A	0.038A	23.67A	10.27	0.09	0.64	0.0318D 0G 0.0418A		34.7118B	

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	GV F	Particle Siz	•
m	%	%	mg/kg	%	%	%	Mg/m3		%	ò
0 - 0.075		3.06B	11H 4.9I		0.27D					
0.1 - 0.2		2.37B	7H 3.9I		0.22D					
0.22 - 0.4		0.99B	3H 2.4I		0.11D					

## **Laboratory Analyses Completed for this profile**

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Extractable sulfur (mg/kg) - Not recorded Total element - Fe(%) - Not recorded DTPA - extractable copper, zinc, manganese and iron Calcium chloride extractable boron - manual colour
Aluminium Cation - meq per 100g of soil - Not recorded  Hydrogen Cation - meg per 100g of soil - Not recorded
Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
salts
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Exchangeable aluminium - meq per 100g of soil - Aluminium By KCI extraction and detremination
Exchange acidity (hydrogen and aluminium) by 1M potassium chloride Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen) Exchangeable sodium percentage (ESP) Bicarbonate-extractable potassium EC of 1:5 soil/water extract pH of 1:5 soil/water suspension pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1 Total organic carbon - high frequency induction furnace, volumetric Total nitrogen - high frequency induction furnace, thermal conductivity Ammonium-N, in presence or absence of nitrite

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7C1b 9B2\_COL longer (Nitrate+nitrite)-N, in presence of nitrite Bicarbonate-extractable phosphorus - automated colour. Based on Colwell (1965). Method no

recommended

9C2 Olsen-extractable phosphorus - automated colour