

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM **Site ID:** C33 **Observation ID:** 1  
**Agency Name:** TAS Department of Primary Industries and Fisheries

#### Site Information

<b>Desc. By:</b>	H. Hawkins	<b>Locality:</b>	Rhebonvale, Wesley Vale
<b>Date Desc.:</b>	28/08/06	<b>Elevation:</b>	101 metres
<b>Map Ref.:</b>	GPS S.A. Off	<b>Rainfall:</b>	852
<b>Northing/Long.:</b>	5439803 AMG zone: 55	<b>Runoff:</b>	Moderately rapid
<b>Easting/Lat.:</b>	455186 Datum: GDA94	<b>Drainage:</b>	Moderately well drained

#### Geology

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	Probable
<b>Geol. Ref.:</b>	Tb	<b>Substrate Material:</b>	Soil pit, Basalt

#### Landform

<b>Rel/Slope Class:</b>	Rolling low hills 30-90m 10-32%	<b>Pattern Type:</b>	Low hills
<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	Moderately inclined
<b>Slope:</b>	19 %	<b>Aspect:</b>	No Data

#### Surface Soil Condition Soft

**Erosion** No wind erosion (wind); No scalding (scald) No sheet erosion (sheet) No wave erosion (wave) No rill erosion (rill) No mass movement (mass) No gully erosion (gully) No stream bank erosion (stbank)

#### Soil Classification

<b>Australian Soil Classification:</b>	Haplic Eutrophic Red Ferrosol Thin Slightly gravelly Clay-loamy Clayey Deep	<b>Mapping Unit:</b>	N/A
<b>ASC Confidence:</b>	All necessary analytical data are available.	<b>Principal Profile Form:</b>	N/A
		<b>Great Soil Group:</b>	N/A

#### Site Disturbance

#### Vegetation

#### Surface Coarse Fragments No surface coarse fragments

#### Profile Morphology

Ap	0 - 0.19 m	Dusky red (2.5YR3/2-Moist); , 0-0% ; Clay loam; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Moderately moist; Weak consistence; Moderately plastic; Normal plasticity; Non-sticky; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Basalt, coarse fragments; Many, fine (1-2mm) roots; Many, very fine (0-1mm) roots; Clear, Wavy change to -
B21t	0.19 - 0.58 m	Dark red (2.5YR3/6-Moist); Mottles, 2.5YR32, 2-10% , 5-15mm, Distinct; Light clay; Moderate grade of structure, 50-100 mm, Subangular blocky; Moderate grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Moderately moist; Firm consistence; Moderately plastic; Normal plasticity; Slightly sticky; 10-20%, fine gravelly, 2-6mm, angular, dispersed, Basalt, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Many, very fine (0-1mm) roots; Gradual, Wavy change to -
B22t	0.58 - 0.91 m	Dark red (2.5YR3/6-Moist); , 0-0% ; Light clay (Heavy); Moderate grade of structure, 50-100 mm, Subangular blocky; Moderate grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Few (<1 per 100mm2) Coarse (>5mm) macropores, Moderately moist; Firm consistence; Moderately plastic; Normal plasticity; Slightly sticky; 10-20%, fine gravelly, 2-6mm, angular, dispersed, Basalt, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Many, very fine (0-1mm) roots; Clear, Wavy change to -

BC clay; Moderate  mm, Subangular  plasticity; Slightly fragments; Common	0.91 - 1.05 m      	Dark red (2.5YR3/6-Moist); Substrate influence, 2.5YR48, 10-20% , 5-15mm, Faint; Light grade of structure, 50-100 mm, Subangular blocky; Moderate grade of structure, 10-20 blocky; Earthy fabric; Moderately moist; Firm consistence; Moderately plastic; Normal sticky; 10-20%, coarse gravelly, 20-60mm, subangular, dispersed, Basalt, coarse cutans, 10-50% of ped faces or walls coated, distinct;
---	---------------------------------------	--

**Morphological Notes**

B21t B22t BC DR	C33C sampled 400-580mm, C33D sampled 600-900mm In BC soil was heavier around weathered DR texturing to a LMC, away from weathered fragments LC. C33E sampled 900-1050mm
--------------------------	--

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM **Site ID:** C33 **Observation ID:** 1  
**Agency Name:** TAS Department of Primary Industries and Fisheries

**Observation Notes**

Peas recently sown.

**Site Notes**

Mode of Geomorphic Activity: Eroded or Aggraded by sheet wash. Inundation frequency: None.

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM **Site ID:** C33 **Observation** 1  
**Agency Name:** TAS Department of Primary Industries and Fisheries

**Laboratory Test Results:**

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.075	5.7C 6.4A	0.159A	18.21A	3.01	2.08	0.67	0.11D 0G 0.12A		24.09B	
0.2 - 0.275	6.2C 6.8A	0.268A	17.41A	2.52	0.62	0.75	0.1D 0G 0.1A		21.4B	
0.4 - 0.58	6.3C 6.5A	0.115A	9.67A	1.81	0.13	0.74	0D 0.37G 0.24A		12.59B	
0.6 - 0.9	6.8C 6.9A	0.101A	8.92A	1.77	0.13	0.8	0D 0.17G 0.22A		11.84B	
0.9 - 1.05	6.8C 6.9A	0.111A	8.66A	1.73	0.17	0.76	0D 0.13G 0.02A		11.34B	

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	%	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.075		3.39B	409H 113.2I		0.32D			
0.2 - 0.275		2.04B	82H 27I		0.19D			
0.4 - 0.58		0.81B	22H 4.6I		0.08D			
0.6 - 0.9		0.5B	28H 6.7I		0.06D			
0.9 - 1.05		0.48B	37H 9.5I		0.06D			

**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	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_K	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts

15A1_MG for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_NA for soluble	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 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

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM      **Site ID:** C33      **Observation** 1  
**Agency Name:** TAS Department of Primary Industries and Fisheries

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
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