

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM **Site ID:** C9 **Observation ID:** 1  
**Agency Name:** TAS Department of Primary Industries and Fisheries

**Site Information**

**Desc. By:** R. Moreton **Locality:** Property Owner: Richard Clingleffer.  
 Property near

**Date Desc.:** 11/11/05 **Elevation:** 140 metres  
**Map Ref.:** GPS S.A. Off **Rainfall:** 1154  
**Northing/Long.:** 5452465 AMG zone: 55 **Runoff:** Moderately rapid  
**Easting/Lat.:** 399399 Datum: GDA94 **Drainage:** Well drained

**Geology**

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

**Landform**

**Rel/Slope Class:** Undulating low hills 30-90m 3-10% **Pattern Type:** Low hills

**Morph. Type:** Mid-slope **Relief:** No Data  
**Elem. Type:** Hillslope **Slope Category:** Very gently sloped  
**Slope:** 5 % **Aspect:** 320 degrees

**Surface Soil Condition** Soft

**Erosion** Partial, Minor (sheet)

**Soil Classification**

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

**Site Disturbance**

**Vegetation**

**Surface Coarse Fragments** 2-10%, stony, 200-600mm, ,

**Profile Morphology**

<p>A1p 0 - 0.12 m Polyhedral;  mm crack;  consistence; Slightly</p>	<p>Dark brown (7.5YR3/4-Moist); , 0-0% ; Clay loam; Moderate grade of structure, 2-5 mm, Moderate grade of structure, 5-10 mm, Subangular blocky; Rough-ped fabric; Fine, (0 - 5) Few (&lt;1 per 100mm<sup>2</sup>) Very fine (0.075-1mm) macropores, Moderately moist; Weak plastic; Moderately sticky; Few, very fine (0-1mm) roots; Abrupt, Smooth change to -</p>
<p>A2p 0.12 - 0.2 m Moderate grade of Subangular blocky; plastic;</p>	<p>Dark brown (7.5YR3/4-Moist); Mottles, 5YR34, 2-10% , 0-5mm, Faint; Clay loam; structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Rough-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Weak consistence; Slightly Moderately sticky; Abrupt, Wavy change to -</p>
<p>B1 0.2 - 0.35 m Strong grade Polyhedral; Smooth- sticky; Clear,</p>	<p>Dark reddish brown (5YR3/4-Moist); Mottles, 7.5YR34, 2-10% , 0-5mm, Faint; Light clay; of structure, 10-20 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, ped fabric; Fine, (0 - 5) mm crack; Moist; Very weak consistence; Moderately plastic; Very Smooth change to -</p>
<p>B21 0.35 - 0.6 m Strong grade Polyhedral; Smooth- sticky;</p>	<p>Dark reddish brown (5YR3/4-Moist); Mottles, 7.5YR34, 2-10% , 5-15mm, Faint; Light clay; of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, ped fabric; Fine, (0 - 5) mm crack; Moist; Very weak consistence; Moderately plastic; Very Gradual, Smooth change to -</p>
<p>B22 0.6 - 1 m Strong grade of</p>	<p>Reddish brown (5YR4/4-Moist); Mottles, 7.5YR34, 2-10% , 5-15mm, Faint; Light clay;</p>

Polyhedral; Rough-ped structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, fabric; Moist; Very weak consistence; Moderately plastic; Very sticky;

#### **Morphological Notes**

A1p	Petration resistance: Soft
A2p	Petration resistance: Soft. Soil Sampled 12-20cm labelled C9A2
B1	Petration resistance: Firm. Soil sampled 20-35cm labelled C9B2
B21	Petration resistance: Stiff. Soil sampled 35-60cm labelled C9C
B22	Petration resistance: Stiff. Soil sampled 60-100cm, labelled C9D

#### **Observation Notes**

Soil class: Lapoinya. Substrate not reached, believed to be Basalt. There was no vegetation, the area was fallow and had been prepared for planting. Inundation frequency: no inundation. Erosion occurs to a depth of 2cm

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM **Site ID:** C9 **Observation ID:** 1  
**Agency Name:** TAS Department of Primary Industries and Fisheries

#### Site Notes

Pit is immediately south of transect start,

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM **Site ID:** C9 **Observation ID:** 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	5.3C 6A	0.066A	11.7A	2.95	1.25	0.16	0.2D 0.08G 0.23A		16.29B	
0.12 - 0.2	5.1C 5.9A	0.054A	8.22A	1.97	0.87	0.12	0.05D 0.96G 0.09A		11.27B	
0.2 - 0.275	4.9C 5.6A	0.102A	8.1A	2.71	0.7	0.23	0.1D 0.16G 0.25A		11.99B	
0.2 - 0.35	5C 5.6A	0.06A	4.94A	1.25	0.45	0.11	0.05D 0.53G 0.08A		6.83B	
0.35 - 0.6	5.5C 5.7A	0.07A	4.89A	1.66	0.3	0.12	0.02D 0.28G 0.03A		7B	
0.6 - 1	4.8C 5.5A	0.052A	4.46A	1.39	0.28	0.13	0.04D 0.39G 0.07A		6.33B	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	Clay %	mg/kg	%	%	%	Mg/m3	GV CS FS Silt %
0 - 0.075		4.68B	134H 38.7I		0.44D			
0.12 - 0.2		3.93B	65H 18.8I		0.42D			
0.2 - 0.275		3.83B	58H 15.9I		0.34D			
0.2 - 0.35		2.17B	8H 2.1I		0.24D			
0.35 - 0.6		1.51B	3H 0.7I		0.18D			
0.6 - 1		1.72B	4H 1.1I		0.2D			

#### 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  
for soluble

Exchangeable bases ( $\text{Ca}^{2+}$ ,  $\text{Mg}^{2+}$ ,  $\text{Na}^{+}$ ,  $\text{K}^{+}$ ) - 1M ammonium chloride at pH 7.0, no pretreatment  
salts

15A1\_MG  
for soluble

Exchangeable bases ( $\text{Ca}^{2+}$ ,  $\text{Mg}^{2+}$ ,  $\text{Na}^{+}$ ,  $\text{K}^{+}$ ) - 1M ammonium chloride at pH 7.0, no pretreatment  
salts

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM      **Site ID:** C9      **Observation** 1  
**Agency Name:** TAS Department of Primary Industries and Fisheries

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
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 longer	Bicarbonate-extractable phosphorus - automated colour. Based on Colwell (1965). Method no recommended
9C2	Olsen-extractable phosphorus - automated colour