

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM      **Site ID:** N12      **Observation ID:** 1  
**Agency Name:** TAS Department of Primary Industries and Fisheries

**Site Information**

<b>Desc. By:</b>	D.B. Kidd	<b>Locality:</b>	Woodrising, Near Cressy
<b>Date Desc.:</b>	21/09/05	<b>Elevation:</b>	158 metres
<b>Map Ref.:</b>	GPS S.A. Off	<b>Rainfall:</b>	606
<b>Northing/Long.:</b>	5376563 AMG zone: 55	<b>Runoff:</b>	Slow
<b>Easting/Lat.:</b>	513494 Datum: GDA94	<b>Drainage:</b>	Poorly drained

**Geology**

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	Probable
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	0.8 m deep, No Data

**Landform**

<b>Rel/Slope Class:</b>	Gently undulating rises 9-30m 1-3% (alluvial)	<b>Pattern Type:</b>	Terraced land
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<b>Morph. Type:</b>	Simple-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Terrace flat	<b>Slope Category:</b>	Very gently sloped
<b>Slope:</b>	3 %	<b>Aspect:</b>	1 degrees

**Surface Soil Condition**      Firm

**Erosion**

**Soil Classification**

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Vertic Mottled-Subnatric Brown Sodosol Medium Non-gravelly Loamy Clayey Deep	<b>Principal Profile Form:</b>	N/A
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	N/A
Analytical data are incomplete but reasonable confidence.		

**Site Disturbance**

**Vegetation**

**Surface Coarse Fragments**      No surface coarse fragments

**Profile Morphology**

Ap      0 - 0.18 m	Very dark greyish brown (10YR3/2-Moist); , 0-0% ; Fine sandy loam; Weak grade of structure, 10-20 mm, (0.075-1mm) macropores, Moderately moist; Firm consistence; Non-plastic; Non-sticky; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Nodules; Common, very fine (0-1mm) roots; Abrupt, Smooth change to -
A2      0.18 - 0.24 m	Light brownish grey (2.5Y6/3-Moist); , 0-0% ; Clayey sand; Weak grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; Non-plastic; Non-sticky; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Nodules; Silcrete, Weakly cemented, Discontinuous, Massive; Common, very fine (0-1mm) roots; Abrupt, Wavy change to -
B21      0.24 - 0.46 m	Brown (10YR4/3-Moist); Mottles, 10R48, 10-20% , 5-15mm, Prominent; Mottles, 10YR41, 10-20% , 5-15mm, Prominent; Medium heavy clay; Weak grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Moderately moist; Very firm consistence; Slightly plastic; Normal plasticity; Moderately sticky; Common cutans, 10-50% of ped faces or walls coated, distinct; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), Nodules; Few, very fine (0-1mm) roots; Clear, Wavy change to -
B22      0.46 - 0.72 m	Dark yellowish brown (10YR4/4-Moist); Mottles, 10R48, 2-10% , 5-15mm, Distinct; Mottles, 10YR41, 2-10% , 5-15mm, Faint; Medium heavy clay; Weak grade of structure, 20-50 mm, Prismatic; Rough-ped fabric; Moderately moist; Firm consistence; Moderately plastic; Normal plasticity; Moderately sticky; Common cutans, 10-50% of ped faces or walls coated, distinct; Gradual, Smooth change

to -

B23 0.72 - 0.9 m Light olive brown (2.5Y5/4-Moist); Mottles, 10YR48, 2-10% , 5-15mm, Distinct; Heavy clay; Massive  
grade of structure; Rough-ped fabric; Moderately moist; Very firm consistence;  
Moderately plastic;  
Normal plasticity; Moderately sticky; Common cutans, 10-50% of ped faces or walls coated, distinct;

#### **Morphological Notes**

B21 N12C sampled 30-45cm  
B22 N12D sampled 46-70 cm  
B23 N12e sampled 70-90cm

#### **Observation Notes**

In a certified seed paddock

#### **Site Notes**

Geomorphic Activity: Aggraded. Geomorphic Agent: Sheet Wash.

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#### **Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.075	6C 6.6A	0.256A	9.95A	2.36	0.44	0.48	0.01D 0G 0.03A		13.26B	
0.2 - 0.275	5.5C 6.3A	0.119A	6.25A	4.02	0.23	0.61	0.03D 0G 0.05A		11.16B	
0.3 - 0.45	5C 5.6A	0.223A	4.84A	11.91	0.17	2.52	0.0334D 0.05G 0.067825A		19.50783B	
0.46 - 0.7	5.8C 6.2A	0.4A	3.04A	12.15	0.17	4.59	0.0218D 0G 0.0318A		19.9818B	
0.7 - 0.9	6.1C 6.4A	0.554A	3.96A	11.89	0.22	5.21	0.0184D 0G 0.0284A		21.3084B	

Depth m	CaCO <sub>3</sub> %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m <sup>3</sup>	Particle GV CS FS Analysis Silt
0 - 0.075		2.46B	79H 29.9I		0.22D			
0.2 - 0.275		1.19B	21H 7.5I		0.12D			
0.3 - 0.45		1.3B	2H 0.6I		0.12D			
0.46 - 0.7		0.42B	1H 0.7I		0.06D			
0.7 - 0.9		0.42B	1H 0.6I		0.04D			

#### **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 (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_K	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
for soluble	salts
15A1_MG	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
for soluble	salts
15A1_NA	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
for soluble	salts
15G_C_AL2	Exchangeable aluminium - meq per 100g of soil - Aluminium By KCl extraction and detremination
By AAS	

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