

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM **Site ID:** C20 **Observation ID:** 1  
**Agency Name:** TAS Department of Primary Industries and Fisheries

**Site Information**

<b>Desc. By:</b>	D.B. Kidd	<b>Locality:</b>	Togari
<b>Date Desc.:</b>	20/04/05	<b>Elevation:</b>	30 metres
<b>Map Ref.:</b>	GPS S.A. Off	<b>Rainfall:</b>	1270
<b>Northing/Long.:</b>	5467575 AMG zone: 55	<b>Runoff:</b>	Moderately rapid
<b>Easting/Lat.:</b>	323325 Datum: GDA94	<b>Drainage:</b>	Poorly drained

**Geology**

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

**Landform**

<b>Rel/Slope Class:</b>	Gently undulating plains <9m 1-3%	<b>Pattern Type:</b>	Alluvial plain
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<b>Morph. Type:</b>	Flat	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Backplain	<b>Slope Category:</b>	Level
<b>Slope:</b>	1 %	<b>Aspect:</b>	No Data

**Surface Soil Condition** Firm

**Erosion**

**Soil Classification**

<b>Australian Soil Classification:</b>	Humose-Acidic Dermosolic Oxyaquic Hydrosol Thick Non-gravelly Loamy Clay-loamy Deep	<b>Mapping Unit:</b>	N/A
<b>ASC Confidence:</b>	Analytical data are incomplete but reasonable confidence.	<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**

<p>A11 0 - 0.12 m Subangular blocky;  per 100mm2)  pH 7.1 (pH</p>	<p>Black (10YR2/1-Moist); , 0-0% ; Sandy loam; Moderate grade of structure, 5-10 mm, Moderate grade of structure, 2-5 mm, Granular; Sandy (grains prominent) fabric; Few (&lt;1 Fine (1-2mm) macropores, Moist; Very weak consistence; Non-plastic; Non-sticky; Field meter); Common, very fine (0-1mm) roots; Clear, Irregular change to -</p>
<p>A12 0.12 - 0.3 m 20 mm, (grains prominent) Non-plastic; fragments; Field pH 7.1</p>	<p>Very dark brown (10YR2/2-Moist); , 0-0% ; Sandy loam; Moderate grade of structure, 10- Subangular blocky; Moderate grade of structure, 5-10 mm, Subangular blocky; Sandy fabric; Few (&lt;1 per 100mm2) Fine (1-2mm) macropores, Moist; Very weak consistence; Non-sticky; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse (pH meter); Common, very fine (0-1mm) roots; Sharp, Wavy change to -</p>
<p>2O1b 0.3 - 0.32 m structure; Sandy consistence; Irregular</p>	<p>Organic Layer; Black (10YR2/1-Moist); , 0-0% ; Fibric peat; Single grain grade of (grains prominent) fabric; Few (&lt;1 per 100mm2) Fine (1-2mm) macropores, Moist; Loose Non-plastic; Non-sticky; Field pH 6.8 (pH meter); Many, very fine (0-1mm) roots; Sharp, change to -</p>
<p>2A1b 0.32 - 0.43 m Subangular blocky;  fabric; Moist; Weak dispersed, Quartz, Irregular change</p>	<p>Black (10YR2/1-Moist); , 0-0% ; Sandy peat; Moderate grade of structure, 10-20 mm, Moderate grade of structure, 5-10 mm, Subangular blocky; Sandy (grains prominent) consistence; Non-plastic; Non-sticky; 2-10%, fine gravelly, 2-6mm, subangular, coarse fragments; Field pH 6.8 (pH meter); Common, very fine (0-1mm) roots; Clear, to -</p>

2A2b	0.43 - 0.6 m	Very dark greyish brown (10YR3/2-Moist); Mottles, 10YR61, 2-10% , 0-5mm, Faint;
Loamy sand (Light);		Weak grade of structure, 10-20 mm, Subangular blocky; Weak grade of structure, 2-5
mm, Granular;		Sandy (grains prominent) fabric; Moist; Very weak consistence; Non-plastic; Slightly
sticky; 2-10%, fine		gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 6.7 (pH
meter); Common,		very fine (0-1mm) roots; Gradual, Irregular change to -
2B2b	0.6 - 1 m	Very dark greyish brown (10YR3/2-Moist); Mottles, 10YR51, 2-10% , 0-5mm, Faint;
Sandy clay loam;		Moderate grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure,
10-20 mm,		Subangular blocky; Sandy (grains prominent) fabric; Moist; Weak consistence; Non-
plastic; Slightly		sticky; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments;
Field pH 5.1 (pH		meter); Common, very fine (0-1mm) roots;

### **Morphological Notes**

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A11 EC, 0.1dS/m.  
 A12 EC, 0.0dS/m.  
 2O1b EC, 0.1dS/m.  
 2A1b EC, 0.0dS/m.  
 2A2b EC, 0.0dS/m. Sampled.  
 2B2b EC, 0.0dS/m. Sampled.

#### Observation Notes

Charcoal in top four horizons of approx. 1cm diameter.

#### Site Notes

Property owner, Tony Craven.

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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	5.9C 6.6A	0.149A	12.93A	4.97	0.22	0.25	0D 0G 0A		18.37B	
0.2 - 0.275	5C 5.9A	0.076A	5.65A	3.74	0.13	0.16	0D 0.15G 0A		9.68B	
0.43 - 0.6	4.3C 5.2A	0.089A	1.98A	0.55	0.33	0.2	0.25825D 0.56G 1.03425A		4.09425B	
0.6 - 0.9	4C 4.9A	0.063A	1.39A	0.51	0.17	0.1	0.34375D 1.41G 1.96375A		4.13375B	

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV CS	Size FS	Analysis Silt
0 - 0.075		4.69B	144H 0I		0.39D					
0.2 - 0.275		4.36B	39H 0I		0.27D					
0.43 - 0.6		3.43B	58H 33.3I		0.15D					
0.6 - 0.9		1.84B	6H 3.1I		0.11D					

#### Laboratory Analyses Completed for this profile

10B\_NK Extractable sulfur (mg/kg) - Not recorded  
 12\_NK\_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\_NK\_AL Aluminium Cation - meq per 100g of soil - Not recorded  
 15\_NK\_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

15A1_MG for soluble	salts 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
15A1_NA for soluble	salts 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
15G_C_AL2 By AAS	salts Exchangeable aluminium - meq per 100g of soil - Aluminium By KCl extraction and determination
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