

**Project Name:** SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania  
**Project Code:** SCEAM **Site ID:** N45 **Observation ID:** 1  
**Agency Name:** TAS Department of Primary Industries and Fisheries

#### Site Information

<b>Desc. By:</b>	H. Hawkins	<b>Locality:</b>	Winton, Near Campbell Town on Valley Field Rd
<b>Date Desc.:</b>	04/07/06	<b>Elevation:</b>	161 metres
<b>Map Ref.:</b>	GPS S.A. Off	<b>Rainfall:</b>	545
<b>Northing/Long.:</b>	5364262 AMG zone: 55	<b>Runoff:</b>	Moderately rapid
<b>Easting/Lat.:</b>	529612 Datum: GDA94	<b>Drainage:</b>	Imperfectly drained

#### Geology

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

#### Landform

<b>Rel/Slope Class:</b>	Undulating rises 9-30m 3-10%	<b>Pattern Type:</b>	Rises
<b>Morph. Type:</b>	Upper-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	Gently inclined
<b>Slope:</b>	9 %	<b>Aspect:</b>	214 degrees

**Surface Soil Condition** Firm

#### Erosion

#### Soil Classification

<b>Australian Soil Classification:</b>	Mapping Unit:	N/A
Basic Inceptic Class Undetermined Tenosol Medium Non-gravelly Loamy Clayey Deep	<b>Principal Profile Form:</b>	N/A
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	N/A
All necessary analytical data are available.		
<b>Australian Soil Classification:</b>	Mapping Unit:	N/A
Basic Black-Orthic Class Undetermined Tenosol Medium Non-gravelly Loamy Clayey Deep	<b>Principal Profile Form:</b>	N/A
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	N/A
All necessary analytical data are available.		

#### Site Disturbance

#### Vegetation

**Surface Coarse Fragments** No surface coarse fragments

#### Profile Morphology

A1	0 - 0.21 m	Dark reddish brown (5YR3/3-Moist); , 0-0% ; Sandy loam; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Very weak consistence; Non-plastic; Normal plasticity; Non-sticky; Many, very fine (0-1mm) roots; Abrupt, Wavy change to -
B21t	0.21 - 0.42 m	Dark reddish brown (5YR3/2-Moist); Mottles, 5YR2.51, 2-10% , 5-15mm, Faint; Mottles, 2.5YR34, 2-10% , 5-15mm, Faint; Clayey sand; Massive grade of structure; Sandy (grains prominent) fabric; crack; Dry; Weak consistence; Non-plastic; Normal plasticity; Slightly sticky; Few, very fine (0-1mm) roots; Clear, Wavy change to -
B22t	0.42 - 0.6 m	Reddish brown (5YR4/3-Moist); Mottles, 5YR46, 10-20% , 15-30mm, Distinct; Mottles, 5YR32, 0-2% , 5-15mm, Distinct; Sandy light clay; Massive grade of structure; Sandy (grains prominent) fabric; Moderately moist; Firm consistence; Moderately plastic; Normal plasticity; Slightly sticky; Common (10 - 20 %), Manganiferous, Fine (0 - 2 mm), Veins; Clear, Wavy change to -
BC	0.6 - 1 m	Reddish brown (5YR4/4-Moist); , 0-0% ; Clayey sand; Massive grade of structure; Sandy (grains prominent) fabric; Dry; Very firm consistence;

#### Morphological Notes

A1 Charcoal in B21 - Piece 5 x 2cm in middle of pit face, generally > 1cm, distributed very few.

### Observation Notes

Vegetation was pasture.

### Site Notes

Mode of Geomorphic Activity: Eroded, Geomorphic Agent: Sheet Wash.

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### Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Na Cmol (+)/kg				%
0 - 0.075	6C 6.9A	0.066A	5.92A	0.89	0.94	0.13	0.02D 0G 0.03A		7.91B	
0.2 - 0.275	6C 6.8A	0.044A	4.35A	0.66	0.46	0.1	0.01D 0G 0.02A		5.59B	
0.5 - 0.6	6C 7A	0.032A	5.6A	5.69	0.35	0.23	0.01D 0G 0.02A		11.89B	
0.65 - 0.9	6.1C 7.4A	0.025A	5.21A	6.15	0.32	0.24	0.01D 0G 0.02A		11.94B	

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.075		1.36B	36H 15.5I		0.16D						
0.2 - 0.275		0.85B	18H 8.7I		0.1D						
0.5 - 0.6		0.21B	3H 1.5I		0.03D						
0.65 - 0.9		0.12B	3H 2.7I		0.02D						

### 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 for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_K for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_NA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 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 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