Project Name: **SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania**
Project Code: **SCEAM** **Site ID:** **N6** **Observation ID:** **1**
Agency Name: **TAS Department of Primary Industries and Fisheries**

Site Information

Desc. By: R. Moreton **Locality:** Property owner, Michael Creswek. Property name, Quamby View. Site located 200m NW of Homestead.

Date Desc.: 02/08/05 **Elevation:** 293 metres
Map Ref.: GPS S.A. Off **Rainfall:** 1032
Northing/Long.: 5400372 AMG zone: 55 **Runoff:** Moderately rapid
Easting/Lat.: 474911 Datum: GDA94 **Drainage:** Moderately well drained

Geology

ExposureType: Soil pit **Conf. Sub. is Parent. Mat.:** Almost certain or certain
Geol. Ref.: Tb **Substrate Material:** , Basalt

Landform

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

Morph. Type: Lower-slope **Relief:** No Data
Elem. Type: Hillslope **Slope Category:** Gently inclined
Slope: 3 % **Aspect:** 180 degrees

Surface Soil Condition

Soft

Erosion

Soil Classification

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

Site Disturbance

Vegetation

Surface Coarse Fragments

0-2%, medium gravelly, 6-20mm, ,

Profile Morphology

A11p 0 - 0.12 m Very dark brown (7.5YR2/2-Moist); Dark brown (7.5YR3/4-Dry); , 0-0% ; Clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; Moderate grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moist; Loose consistence; Slightly plastic; Normal plasticity; Slightly sticky; 2-10%, medium gravelly, 6-20mm, subrounded, dispersed, coarse fragments; Few, very fine (0-1mm) roots; Clear, Smooth change to -

A12p 0.12 - 0.3 m Very dark brown (7.5YR2/2-Moist); , 0-0% ; Clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; Moderate grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moist; Very weak consistence; Slightly plastic; Normal plasticity; Slightly sticky; 2-10%, medium gravelly, 6-20mm, subrounded, dispersed, coarse fragments; Few, very fine (0-1mm) roots; Abrupt, Wavy change to -

B1t 0.3 - 0.55 m Dark reddish brown (2.5YR3/4-Moist); Substrate influence, 5YR46, 0-2% , 0-5mm, Distinct; Mottles, 2.5YR46, 0-2% , 0-5mm, Distinct; Clay loam; Massive grade of structure; Moderate grade of structure, 2-5 mm, Polyhedral; Earthy fabric; Moist; Weak consistence; Slightly plastic; Normal plasticity; Moderately sticky; 2-10%, coarse gravelly, 20-60mm, subrounded, dispersed, coarse fragments; Gradual, Smooth change to -

B21t 0.55 - 0.9 m Dark red (2.5YR3/6-Moist); Substrate influence, 5YR46, 0-2% , 0-5mm, Distinct; Mottles, 2.5YR46, 0-2% , 0-5mm, Distinct; Medium clay (Light); Massive grade of structure; Moderate grade of

structure, 2-5 mm, Polyhedral; Earthy fabric; Moist; Weak consistence; Moderately plastic; Normal plasticity; Very sticky; 2-10%, coarse gravelly, 20-60mm, subrounded, dispersed, coarse fragments; Gradual, Smooth change to -

B22t 0.9 - 1.12 m Yellowish red (5YR4/6-Moist); , 0-0% ; Light clay; Massive grade of structure; Strong grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Moist; Weak consistence; Moderately plastic; Normal plasticity; Very sticky; Common cutans, 10-50% of ped faces or walls coated, faint;

Morphological Notes

A11p Penetration resistance: Soft
A12p Penetration resistance: Firm

Project Name: SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania
Project Code: SCEAM **Site ID:** N6 **Observation ID:** 1
Agency Name: TAS Department of Primary Industries and Fisheries

B1t Penetration resistance: Stiff. Fragments of charcoal in B1 Horizon. Sampled from .30 to .55m,
Label N6C.
B21t Penetration resistance: Stiff. B21 Horizon sampled from .60 to .90m, Label N6D.
B22t Penetration resistance: Stiff. Slicken Sides (K) of Peds have colour of 5YR46. B22 Horizon
sampled from .90 to 1.12m, Label N6E.

Observation Notes

Substrate rock of Basalt (BA) not reached during Soil Pit observation. Coarse fragments on surface contain BA grain size 0.06-2mm,
crystalline texture with massive structure. No vegetation, weed regrowth. Soil class is Yolla

Site Notes

Element slope class is gentle. Mode of geomorphic activity is eroded or aggraded. With the geomorphic agent volcanic. Inundation
frequency was recorded as no inundation.

Project Name: SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania
Project Code: SCEAM **Site ID:** N6 **Observation** 1
Agency Name: TAS Department of Primary Industries and Fisheries

Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations Ca	Mg	K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.075	5.7C 6.4A	0.097A	14.57A	2.95	1.44	0.18	0D 0G 0A		19.14B	
0.175 - 0.25	5.6C 6.3A	0.06A	14.94A	2.85	0.29	0.19	0D 0G 0A		18.27B	
0.3 - 0.55	5.7C 5.8A	0.191A	9.08A	1.65	0.14	0.19	0.01005D 0G 0.059825A		11.11983B	
0.6 - 0.9	6C 6.2A	0.1A	6.5A	1.1	0.06	0.12	0.0059D 0G 0.040675A		7.820675B	
0.9 - 1.12	6.2C 6.5A	0.052A	6.69A	1.8	0.07	0.27	0.006495D 0G 0.014675A		8.844675B	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis GV	CS	FS	Silt
		Clay									
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.075		5.1B	137H 27.9I		0.45D						
0.175 - 0.25		5.42B	110H 24.2I		0.52D						
0.3 - 0.55		1.69B	12H 4.2I		0.16D						
0.6 - 0.9		0.86B	8H 3.1I		0.08D						
0.9 - 1.12		0.67B	9H 3.1I		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	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_NA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts

Project Name: **SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania**
Project Code: **SCEAM** **Site ID:** **N6** **Observation** **1**
Agency Name: **TAS Department of Primary Industries and Fisheries**

15G_C_AL2	Exchangeable aluminium - meq per 100g of soil - Aluminium By KCl extraction and detremination By AAS
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