Project Name: **SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania**
Project Code: **SCEAM** **Site ID:** **N32** **Observation ID:** **1**
Agency Name: **TAS Department of Primary Industries and Fisheries**

Site Information

Desc. By:	D.B. Kidd	**Locality:**	Evercreech
Date Desc.:	14/09/05	**Elevation:**	270 metres
Map Ref.:	GPS S.A. Off	**Rainfall:**	913
Northing/Long.:	5409353 AMG zone: 55	**Runoff:**	Slow
Easting/Lat.:	576855 Datum: GDA94	**Drainage:**	Well drained

Geology

ExposureType:	Soil pit	**Conf. Sub. is Parent. Mat.:**	Almost certain or certain
Geol. Ref.:	No Data	**Substrate Material:**	1.8 m deep,No Data

Landform

Rel/Slope Class: Gently undulating plains <9m 1-3% **Pattern Type:** Flood plain

Morph. Type:	Flat	**Relief:**	No Data
Elem. Type:	Valley flat	**Slope Category:**	Very gently sloped
Slope:	2 %	**Aspect:**	175 degrees

Surface Soil Condition

Soft

Erosion

Soil Classification

Australian Soil Classification: **Mapping Unit:** N/A
Bauxitic Mesotrophic Brown Dermosol Medium Non-gravelly Clay-loamy Clayey Deep **Principal Profile Form:** N/A

ASC Confidence: **Great Soil Group:** N/A
Analytical data are incomplete but reasonable confidence.

Site Disturbance

Vegetation

Surface Coarse Fragments

No surface coarse fragments

Profile Morphology

A1 0 - 0.15 m Very dark brown (10YR2/2-Moist); , 0-0% ; Clay loam; Strong grade of structure, 2-5 mm, Granular; Rough-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Weak consistence; Very plastic; Normal plasticity; Slightly sticky; 2-10%, medium gravelly, 6-20mm, rounded, dispersed, Sandstone, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Common, very fine (0-1mm) roots; Clear, Wavy change to -

B1 0.15 - 0.42 m Dark brown (7.5YR3/3-Moist); Biological mixing, 10YR22, 2-10% , 5-15mm, Distinct; Light clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Subangular blocky; Rough-ped fabric; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Weak consistence; Moderately plastic; Normal plasticity; Slightly sticky; 0-2%, medium gravelly, 6-20mm, subrounded, undisturbed, Chert, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Soft segregations; Common, very fine (0-1mm) roots; Clear, Smooth change to -

B2 0.42 - 0.8 m Dark yellowish brown (10YR4/4-Moist); Mottles, 7.5YR33, 2-10% , 5-15mm, Faint; Light clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Weak grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moist; Weak consistence; Slightly plastic; Normal plasticity; Moderately sticky; Few (2 - 10 %), Manganiferous, Fine (0 - 2 mm), Soft segregations; Few, very fine (0-1mm) roots; Clear, Smooth change to -

BC	0.8 - 1.1 m	Light olive brown (2.5Y5/4-Moist); Mottles, 10YR44, 10-20% , 5-15mm, Faint; Fine sandy clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moderate grade of structure, Angular blocky; Smooth-ped fabric; Moist; Weak consistence; Slightly plastic; Normal sticky; Few (2 - 10 %), Manganiferous, Fine (0 - 2 mm), Soft segregations; Few, very fine (0-1mm) roots;

light medium

2-5 mm,

plasticity; Very

Morphological Notes

B1	N32C 15-40cm
B2	N32D 45-75cm
BC	N32E 80-100cm

Observation Notes

Plantation forestry

Site Notes

Geomorphic Activity: Aggraded. Geomorphic Agent: Sheet Wash.

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.075	5.1C 5.7A	0.157A	11.91A	1.69	0.53	0.23	0.24D 0.38G 0.45A		14.81B	
0.15 - 0.225	4.8C 5.6A	0.101A	6.12A	1.06	0.32	0.13	0.3D 0.89G 1.24A		8.87B	
0.15 - 0.4	4.3C 4.9A	0.064A	2.3A	0.62	0.33	0.18	0.281875D 1.6G 2.493875A		5.923875B	
0.45 - 0.75	4.4C 5A	0.045A	2.24A	1.07	0.06	0.14	0.147125D 0.77G 1.215875A		4.725875B	
0.8 - 1	4.7C 5.5A	0.026A	1.41A	2.35	0.09	0.13	0.680375D 0.3G 0.690375A		4.670375B	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis			
		Clay						GV	CS	FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.075		5.64B	109H 32.5I		0.48D						
0.15 - 0.225		3.1B	48H 14.8I		0.3D						
0.15 - 0.4		1.65B	18H 4.9I		0.14D						
0.45 - 0.75		0.8B	12H 4I		0.06D						
0.8 - 1		0.79B	9H 3.2I		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

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15A1_NA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 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
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