

Project Name: SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania
Project Code: SCEAM **Site ID:** S18 **Observation ID:** 1
Agency Name: TAS Department of Primary Industries and Fisheries

Site Information

Desc. By: R. Moreton	Locality: Brighton	Owner: Walter Thompson. Property:
Date Desc.: 23/03/06	Elevation: 99 metres	
Map Ref.: GPS S.A. Off	Rainfall: 519	
Northing/Long.: 5273284 AMG zone: 55	Runoff: Very rapid	
Easting/Lat.: 524975 Datum: GDA94	Drainage: Well drained	

Geology

ExposureType: Soil pit	Conf. Sub. is Parent. Mat.: Almost certain or certain
Geol. Ref.: Jd	Substrate Material: Soil pit, 0.5 m deep, Igneous rock (unidentified)

Landform

Rel/Slope Class: Rolling hills 90-300m 10-32%	Pattern Type: Low hills
Morph. Type: Upper-slope	Relief: No Data
Elem. Type: Hillslope	Slope Category: Moderately inclined
Slope: 20 %	Aspect: 355 degrees

Surface Soil Condition Loose

Erosion Partial, Minor (sheet)

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Basic Paralitric Leptic Rudosol Non-gravelly Clay-loamy Shallow	Principal Profile Form: N/A
ASC Confidence:	Great Soil Group: N/A
All necessary analytical data are available.	

Site Disturbance

Vegetation

Surface Coarse Fragments 10-20%, cobbly, 60-200mm, ,

Profile Morphology

A11 0 - 0.03 m	Black (10YR2/1-Moist); Dark brown (10YR3/3-Moist); , 0-0% ; Clay loam; Weak grade of structure, <2
60mm,	mm, Polyhedral; Earthy fabric; Dry; Non-plastic; Slightly sticky; 0-2%, coarse gravelly, 20-
Smooth change	subangular, dispersed, Dolerite, coarse fragments; Few, very fine (0-1mm) roots; Clear, to -
A12 0.03 - 0.17 m	(/-Moist); Dark brown (7.5YR3/2-Moist); , 0-0% ; Clay loam; Weak grade of structure, 10-
20 mm,	Subangular blocky; Weak grade of structure, 5-10 mm, Subangular blocky; Rough-ped
fabric; Fine, (0 -	5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Non-
plastic; Slightly	sticky; 0-2%, coarse gravelly, 20-60mm, subangular, dispersed, Dolerite, coarse
fragments; Few, very	fine (0-1mm) roots; Sharp, Smooth change to -
CR 0.17 - 0.54 m	Olive brown (2.5Y4/4-Moist); Light grey (2.5Y7/2-Moist); , 0-0% ; Massive grade of
structure; Earthy	fabric; Dry;

Morphological Notes

A11	Penetration resistance: soft
A12	Penetration resistance: Firm
CR	Penetration resistance: Hard. Sampled 20-0cm Labeled S18B

Observation Notes

Vegetation of native poa and grasses. Substrate weathered/partially weathered dolerite.

Site Notes

GPS is the fix from the SCEAM database as not listed on soil profile discription card

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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				Cmol (+)/kg				%
0 - 0.075	5.7C 6.4A	0.061A	18.53A	6.75	0.63	0.24	0.07D 0G 0.08A		26.23B	
0.2 - 0.5	6.6C 7.3A	0.036A	9.57A	7.15	0.05	0.14	0.01D 0G 0.02A		16.93B	

Depth	CaCO ₃	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	%	mg/kg	%	%	%	Mg/m ³	GV CS FS Silt
0 - 0.075		3.52B	17H 6.8I		0.38D			
0.2 - 0.5		0.37B	2H 0.9I		0.03D			

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 ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_K	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_MG	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_NA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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