Project Name: **Regional**
Project Code: **REG** **Site ID:** **T277** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (QLD)**

Site Information

Desc. By:	G.G. Murtha	**Locality:**	On J.T.T.R.E.
Date Desc.:	01/11/79	**Elevation:**	5 metres
Map Ref.:	Sheet No. : 8162 1:100000	**Rainfall:**	3000
Northing/Long.:	146.133333333333	**Runoff:**	No runoff
Easting/Lat.:	-17.6666666666667	**Drainage:**	Rapidly drained

Geology

ExposureType:	Soil pit	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	QR	**Substrate Material:**	Sand

Land Form

Rel/Slope Class:	No Data	**Pattern Type:**	Beach ridge plain
Morph. Type:	Crest	**Relief:**	2 metres
Elem. Type:	Beach ridge	**Slope Category:**	No Data
Slope:	0 %	**Aspect:**	No Data

Surface Soil Condition (dry): Loose

Erosion:

Soil Classification

Australian Soil Classification:
Fragic Humosequic Semiaquic Podosol
ASC Confidence:
All necessary analytical data are available.

Mapping Unit: N/A
Principal Profile Form: Uc5.11
Great Soil Group: Podzol

Site Disturbance: No effective disturbance. Natural

Vegetation:

Mid Strata - Shrub, 1.01-3m, Sparse. *Species includes - None recorded
Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - None Recorded

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.1 m	Light brownish grey (10YR6/2-Moist); ; Sand; Single grain grade of structure; Dry; Loose consistence; Many, fine (1-2mm) roots;
A11	0.1 - 0.2 m	Light brownish grey (10YR6/2-Moist); ; Sand; Single grain grade of structure; Dry; Loose consistence; Many, fine (1-2mm) roots; Gradual change to -
A12	0.2 - 0.3 m	Very dark grey (10YR3/1-Moist); ; Sand; Single grain grade of structure; Dry; Loose consistence; Common, fine (1-2mm) roots; Gradual, Irregular change to -
B2	0.3 - 0.45 m	Black (5YR2/1-Moist); ; Sand; Single grain grade of structure; Dry; Loose consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Pumice, coarse fragments; Few, fine (1-2mm) roots; Diffuse change to -
B2	0.45 - 0.6 m	Dark reddish brown (5YR3/3-Moist); ; Sand; Single grain grade of structure; Dry; Loose consistence; Diffuse change to -
BC	0.6 - 0.9 m	Yellowish brown (10YR5/6-Moist); , 7.5YR44, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Sand; Single grain grade of structure; Dry; Loose consistence; Diffuse change to -
C	0.9 - 1.2 m	Very pale brown (10YR7/4-Moist); , 10YR58, 2-10% , 5-15mm, Distinct; , 2-10% , 5-15mm, Distinct; Sand; Single grain grade of structure; Dry; Loose consistence;

Morphological Notes

Observation Notes

0-20CM MANY BLACK WORM CASTS 5MM X 10MM:

Site Notes

COWLEY BEACH

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m	Cmol (+)/kg							%
0 - 0.1	4.8A	0.037A	1.11H	0.48	<0.01	0.02	0.64F	3A	2.3F	0.67
0.1 - 0.2	5A	0.022A								
0.2 - 0.3	5.1A	0.019A	0.3H	0.08	<0.01	0.01	1.3F	1.8A	1.7F	0.56
0.3 - 0.45	5.2A	0.017A	0.06H	0.01	<0.01	<0.01	0.92F	0.8A	1F	
0.45 - 0.6	5.4A	0.017A								
0.6 - 0.9	5.5A	0.015A								
0.9 - 1.2	5.7A	0.009A								

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 - 0.1		1.07D	7B	0.006A	0.03A	0.12A		<2	88A	8	2	2
0.1 - 0.2			5B									
0.2 - 0.3		0.54D	5B		0.02A			<2	93A	4	1	2
0.3 - 0.45		0.48D	8B		0.03A			2	93A	5	1	1
0.45 - 0.6		0.33D										
0.6 - 0.9				0.002A		0.1A		2	90A	9	0	1
0.9 - 1.2								2	93A	6	0	1

Depth	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m		g/g - m3/m3							mm/h	mm/h
0 - 0.1										
0.1 - 0.2										
0.2 - 0.3										
0.3 - 0.45										
0.45 - 0.6										
0.6 - 0.9										
0.9 - 1.2										

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15A2_CEC	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15G_C	Exchange acidity (hydrogen and aluminium) - meq per 100g of soil - By 1M KCl exch. acidity by titration to pH 8.4
15J1	Effective CEC
17A1	Total potassium - X-ray fluorescence
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES)
9H1	Phosphate retention
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P10_GRAV	Gravel (%)