Project Name: **Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD**
Project Code: **DLR** **Site ID:** **T584** **Observation ID:** **1**
Agency Name: **QLD Department of Primary Industries**

Site Information

Desc. By:	M.G. Cannon	**Locality:**	
Date Desc.:	18/08/93	**Elevation:**	No Data
Map Ref.:	Sheet No. : 7957 GPS	**Rainfall:**	No Data
Northing/Long.:	7776466 AMG zone: 55	**Runoff:**	No Data
Easting/Lat.:	323801 Datum: AGD66	**Drainage:**	No Data

Geology

ExposureType:	No Data	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	No Data	**Substrate Material:**	No Data

Land Form

Rel/Slope Class:	Gently undulating rises 9-30m 1-3%	**Pattern Type:**	Rises
Morph. Type:	Simple-slope	**Relief:**	No Data
Elem. Type:	Hillslope	**Slope Category:**	Very gently sloped
Slope:	3 %	**Aspect:**	No Data

Surface Soil Condition (dry): Loose

Erosion:

Soil Classification

Australian Soil Classification:
Basic Paralithic Orthic Tenosol Thick Gravelly Sandy Sandy Moderately deep

Mapping Unit: N/A
Principal Profile Form: Uc2.12

ASC Confidence:
All necessary analytical data are available.

Great Soil Group: Siliceous sand

Site Disturbance: No effective disturbance other than grazing by hoofed animals

Vegetation: Low Strata - Tussock grass, 0.51-1m, Sparse. *Species includes - Heteropogon contortus, Aristida species
Mid Strata - Tree, 3.01-6m, Sparse. *Species includes - Unknown species, Petalostigma pubescens
Tall Strata - Tree, 12.01-20m, Isolated plants. *Species includes - Eucalyptus crebra, Eucalyptus polycarpa, Eucalyptus papuana

Surface Coarse Fragments: 10-20%, fine gravelly, 2-6mm, subangular, Quartz

Profile Morphology

A11	0 - 0.05 m	Brown (10YR5/3-Moist); ; Sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 0.02); Clear change to -
A12	0.05 - 0.14 m	Brown (10YR5/3-Moist); ; Sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.1); Clear change to -
A2e	0.14 - 0.46 m	Light yellowish brown (10YR6/4-Moist); ; Coarse sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; 2-10%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.4); Gradual change to -
B21	0.46 - 0.58 m	Yellowish brown (10YR5/6-Moist); ; Clayey coarse sand (Light); Massive grade of structure; Earthy fabric; Dry; Very weak consistence; 10-20%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.5); Gradual change to -
B22	0.58 - 0.73 m	Yellowish brown (10YR5/4-Moist); Mottles, 10R48, 10-20% , 15-30mm, Prominent; Mottles, 10-20% ; Clayey coarse sand (Heavy); Massive grade of structure; Earthy fabric; Dry; Weak consistence; 10-20%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), Concretions; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.7);
BC	0.73 - 0.95 m	Yellowish brown (10YR5/4-Moist); Substrate influence, 10R48, 20-50% , 30-mm, Prominent; Substrate influence, 2.5Y53, 20-50% ; Coarse sandy loam; Massive grade of structure; Earthy fabric; Dry; Weak consistence; 10-20%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), Concretions; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 0.9);

Morphological Notes

Observation Notes

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Kaylene Site 17

Site Notes

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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 - 0.05	9.1A	0.06A	1.6B	0.46	0.22	0.03				
0.05 - 0.14	6.2C 9A	0.06A								
0.14 - 0.46	5.6C 9A	0.04A								
0.46 - 0.58	8.2A	0.04A	1.3B	0.71	0.3	0.02				
0.58 - 0.73	5.6C 7.2A	0.03A								
0.73 - 0.95	5.5C 7A	0.03A								

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 - 0.05		0.33A		0.023A	0.01A	3.37A			72A	23	2	3
0.05 - 0.14												
0.14 - 0.46												
0.46 - 0.58		0.21A		0.021A	0.01A	2.81A			70A	16	2	12
0.58 - 0.73												
0.73 - 0.95												

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 - 0.05										
0.05 - 0.14										
0.14 - 0.46										
0.46 - 0.58										
0.58 - 0.73										
0.73 - 0.95										

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
10B	Extractable sulfur(mg/kg) - Phosphate extractable sulfur
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
15A2_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_K	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_MG	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_NA	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
17A1	Total potassium - X-ray fluorescence
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
5A1	Chloride - 1:5 soil/water extract, potentiometric titration
6A1	Organic carbon - Walkley and Black
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
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