Project Name: **Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD**
Project Code: **DLR** **Site ID:** **T589** **Observation ID:** **1**
Agency Name: **QLD Department of Primary Industries**

Site Information

Desc. By: M.G. Cannon
Date Desc.: 17/08/93
Map Ref.: Sheet No. : 8056 GPS
Northing/Long.: 7728936 AMG zone: 55
Easting/Lat.: 370547 Datum: AGD66
Locality:
Elevation: No Data
Rainfall: No Data
Runoff: No Data
Drainage: No Data

Geology

ExposureType: No Data
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Undisturbed soil core, No Data

Land Form

Rel/Slope Class: Level plain <9m <1%
Morph. Type: Flat
Elem. Type: Plain
Slope: 1 %
Pattern Type: Plain
Relief: No Data
Slope Category: Level
Aspect: No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Bleached-Ferric Eutrophic Grey Kandosol Thick Non-gravelly Sandy Clay-loamy Deep
Mapping Unit: N/A
Principal Profile Form: Gn2.94
ASC Confidence:
All necessary analytical data are available.
Great Soil Group: Grey earth

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

Vegetation: Low Strata - Tussock grass, 0.51-1m, Sparse. *Species includes - Aristida species, Heteropogon contortus, Unknown species Mid Strata - Tree, 3.01-6m, Isolated plants. *Species includes - Eucalyptus melanophloia, Acacia coriacea

Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus melanophloia

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); ; Loamy sand; Massive grade of structure; Earthy fabric; Dry; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.05); Gradual change to -
A12e	0.1 - 0.25 m	Brown (10YR5/3-Moist); ; Sandy loam; Massive grade of structure; Earthy fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.15); Gradual change to -
A3j	0.25 - 0.5 m	Light yellowish brown (10YR6/4-Moist); Mottles, 10YR66, 2-10% , 5-15mm, Distinct; Mottles, 2-10% ; Sandy clay loam; Massive grade of structure; Earthy fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 5.6 (Raupach, 0.4); Diffuse change to -
B21	0.5 - 0.81 m	Light yellowish brown (10YR6/4-Moist); Mottles, 10YR78, 10-20% , 5-15mm, Distinct; Mottles, 10-20% ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Dry; Weak consistence; Common (10 - 20 %), Ferromanganiferous, Medium (2 -6 mm), Concretions; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.6); Diffuse change to -
B22	0.81 - 0.95 m	Light grey (10YR7/2-Moist); Mottles, 10YR68, 10-20% , 5-15mm, Prominent; Mottles, 10-20% ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Dry; Strong consistence; Very many (50 - 100 %), Ferromanganiferous, Coarse (6 - 20 mm), Concretions; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 0.85); Clear change to -
B23c	0.95 - 1.32 m	Light grey (10YR7/1-Moist); Mottles, 10YR68, 10-20% , 5-15mm, Prominent; Mottles, 10-20% ; Coarse sandy clay loam; Massive grade of structure; Earthy fabric; Dry; Strong consistence; Very many (50 - 100 %), Ferromanganiferous, Coarse (6 - 20 mm), Concretions; , Calcareous, , ; , Gypseous, , ; Field pH 6.2 (Raupach, 1.2);
	1.32 - 1.6 m	Light grey (10YR7/1-Moist); Mottles, 10YR68, 10-20% , 5-15mm, Prominent; Mottles, 10-20% ; Coarse sandy clay loam; Massive grade of structure; Earthy fabric; Strong consistence; 10-20%, medium gravelly, 6-20mm, rounded, dispersed, Quartz, coarse fragments; Very many (50 - 100 %), Ferromanganiferous, Coarse (6 - 20 mm), Concretions; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 1.4); Abrupt change to -

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1.6 - 1.8 m	Light grey (10YR7/1-Moist); ; Clay loam, coarse sandy; Massive grade of structure; Earthy fabric; Rigid consistence; 10-20%, medium gravelly, 6-20mm, rounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Thin ironpan, Very strongly cemented, Continuous, Massive; Field pH 6.5 (Raupach, 1.7); Clear change to -
1.8 - 1.95 m	Light grey (10YR7/1-Moist); Mottles, 7.5YR58, 10-20% , 5-15mm, Prominent; Mottles, 10-20% ; Clay loam, coarse sandy; Massive grade of structure; Earthy fabric; Rigid consistence; , Calcareous, , ; , Gypseous, , ; Thin ironpan, Very strongly cemented, Continuous, Massive; Field pH 6.5 (Raupach, 1.9);

Morphological Notes

Observation Notes

Kaylene Site 22

Site Notes

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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 - 0.1	4.7C 6.8A	0.03A	1B	0.44	0.2	0.03				
0.1 - 0.25	4.6C 6.7A	0.03A								
0.25 - 0.5	4.8C 6.5A	0.02A								
0.5 - 0.81	5.4C 6.5A	0.04A	7.3B	1.6	0.75	0.05				
0.81 - 0.95	5.6C 6.6A	0.03A								
0.95 - 1.32	5.7C 6.8A	0.03A								
1.32 - 1.6	5.7C 7A	0.02A	1.2B	1.5	0.09	0.24				
1.6 - 1.8	5.4C 7A	0.03A								
1.8 - 1.95	4.6C 7A	0.05A	2.5B	7.4	0.009	2				

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		0.41A		0.014A	0.01A	0.39A			33A	48	9	10
0.1 - 0.25												
0.25 - 0.5												
0.5 - 0.81		0.29A		0.016A	0.01A	0.44A			33A	24	4	39
0.81 - 0.95												
0.95 - 1.32												
1.32 - 1.6									50A	25	7	19
1.6 - 1.8												
1.8 - 1.95				0.013A		0.79A			37A	25	8	30

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 - 0.25									
0.25 - 0.5									
0.5 - 0.81									
0.81 - 0.95									
0.95 - 1.32									
1.32 - 1.6									
1.6 - 1.8									
1.8 - 1.95									

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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