Project Name: **Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD**
Project Code: **DLR** **Site ID:** **T581** **Observation ID:** **1**
Agency Name: **QLD Department of Primary Industries**

Site Information

Desc. By: M.G. Cannon
Date Desc.: 18/08/93
Map Ref.: Sheet No. : 8157 GPS
Northing/Long.: 7786398 AMG zone: 55
Easting/Lat.: 421406 Datum: AGD66
Locality:
Elevation: 310 metres
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: Gently undulating plains <9m 1-3%
Morph. Type: No Data
Elem. Type: Plain
Slope: 2 %
Pattern Type: Plain
Relief: No Data
Slope Category: Gently inclined
Aspect: No Data

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:
Haplic Hypercalcic Red Dermosol Thin Non-gravelly Clayey Clayey Moderately deep
Mapping Unit: N/A
Principal Profile Form: Uf5.31
ASC Confidence:
All necessary analytical data are available.
Great Soil Group: N/A

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

Vegetation: Low Strata - Tussock grass, 0.51-1m, Sparse. *Species includes - Bothriochloa pertusa, Bothriochloa decipiens, Cenchrus ciliarisMid Strata - Tree, 3.01-6m, Isolated clumps. *Species includes - Eucalyptus erythrophloia

Tall Strata - Tree, 6.01-12m, Isolated plants. *Species includes - Eucalyptus erythrophloia, Eucalyptus drepanophylla

Surface Coarse Fragments: 0-2%, cobbly, 60-200mm, subangular, Schist

Profile Morphology

A	0 - 0.01 m	Dark brown (7.5YR3/3-Moist); ; Light clay; Strong grade of structure, 2-5 mm, Granular; Smooth-ped fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 7
B21	0.01 - 0.14 m	Dark brown (7.5YR3/3-Moist); ; Medium clay; Strong grade of structure, 10-20 mm, Angular blocky; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Dry; Very firm consistence; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 0.1);
B22	0.14 - 0.33 m	Reddish brown (5YR4/4-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Angular blocky; Strong grade of structure, 2-5 mm, Columnar; Smooth-ped fabric; Dry; Very firm consistence; , Calcareous, , ; , Gypseous, , ; Field pH 7.5 (Raupach, 0.3);
B3	0.33 - 0.53 m	Yellowish red (5YR4/8-Moist); ; Silty clay loam; Moderate grade of structure, 5-10 mm, Angular blocky; Earthy fabric; Moderately moist; Weak consistence; Many (20 - 50 %), Calcareous, Medium (2 -6 mm), Soft segregations; , Gypseous, , ; Soil matrix is Slightly calcareous; Field pH 9.5 (Raupach, 0.5);
BC	0.53 - 0.78 m	Yellowish brown (10YR5/4-Moist); ; Silty clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; Many (20 - 50 %), Calcareous, Medium (2 -6 mm), Soft segregations; , Gypseous, , ; Soil matrix is Slightly calcareous; Field pH 9.5 (Raupach, 0.7);
C	0.78 - 0.96 m	; Silty clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; Many (20 - 50 %), Calcareous, Medium (2 -6 mm), Soft segregations; , Gypseous, , ; Soil matrix is Slightly calcareous; Field pH 9.5 (Raupach, 0.9);

Morphological Notes

Observation Notes

Kaylene Site 12

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 - 0.01										
0.01 - 0.14	6.1C 7.7A	0.11A	26E	6.1	0.44	0.09		40B		0.23
0.14 - 0.33	6.9C 8.3A	0.17A	36E	6.3	0.12	0.09		50B		0.18
0.33 - 0.53	7.7C 8.7A	0.16A								
0.53 - 0.78	7.8C 8.8A	0.16A	31E	5.7	0.06	0.09		39B		0.23
0.78 - 0.96	7.8C 8.8A	0.16A								

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 - 0.01								2	25A	25	11	40
0.01 - 0.14		0.89A		0.077A		0.77A			20A	27	10	43
0.14 - 0.33		0.56A		0.06A	0.05A	0.59A			17A	22	14	48
0.33 - 0.53												
0.53 - 0.78				0.075A		0.54A			25A	36	20	20
0.78 - 0.96												

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 - 0.01									
0.01 - 0.14									
0.14 - 0.33									
0.33 - 0.53									
0.53 - 0.78									
0.78 - 0.96									

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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
15C1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, 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
P10_GRAV	Gravel (%)