Project Name: **Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD**
Project Code: **DLR** **Site ID:** **180** **Observation ID:** **1**
Agency Name: **QLD Department of Primary Industries**

Site Information

Desc. By: M. DeCorte
Date Desc.: 10/10/90
Map Ref.: Sheet No. : 7860 GPS
Northing/Long.: 7905923 AMG zone: 55
Easting/Lat.: 286014 Datum: AGD66
Locality:
Elevation: 460 metres
Rainfall: No Data
Runoff: No runoff
Drainage: Imperfectly drained

Geology

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

Land Form

Rel/Slope Class: Undulating rises 9-30m 3-10%
Morph. Type: Ridge
Elem. Type: Levee
Slope: 2 %
Pattern Type: Rises
Relief: No Data
Slope Category: Very gently sloped
Aspect: 220 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Sodic Eutrophic Brown Chromosol Medium Non-gravelly Silty Clayey Deep
Mapping Unit: N/A
Principal Profile Form: Db3.33

ASC Confidence:
No analytical data are available but confidence is fair.
Great Soil Group: No suitable group

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

Vegetation: Low Strata - Tussock grass, 0.51-1m, Mid-dense. *Species includes - Bothriochloa decipiens, Heteropogon triticeus

Mid Strata - Tree, 6.01-12m, Mid-dense. *Species includes - Eucalyptus platyphylla

Tall Strata - Tree, 12.01-20m, Mid-dense. *Species includes - Eucalyptus platyphylla, Eucalyptus crebra

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.03 m	Very dark grey (10YR3/1-Moist); ; Silty loam; Strong grade of structure, <2 mm, Granular; Earthy fabric; Many (>5 per 100mm2) Medium (2-5mm) macropores, Dry; Firm consistence; , Calcareous, , ; , Gypseous, , ; Common, medium (2-5mm) roots; Clear, Smooth change to -
A2j	0.03 - 0.18 m	Dark greyish brown (10YR4/2-Moist); ; Silty clay loam; Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Medium (2-5mm) macropores, Dry; Very firm consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.7 (Raupach, 0.05); Common, fine (1-2mm) roots; Sharp, Tongued change to -
B21t	0.18 - 0.42 m	Dark yellowish brown (10YR4/4-Moist); Mottles, 10YR58, 20-50% , 5-15mm, Faint; Mottles, 20-50% ; Medium clay; Strong grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 2-5 mm, Prismatic; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Common cutans, 10-50% of ped faces or walls coated, prominent; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 0.3); Common, very fine (0-1mm) roots; Clear, Smooth change to -
B22t	0.42 - 0.78 m	Strong brown (7.5YR5/6-Moist); ; Clay loam (Heavy); Strong grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; , Gypseous, , ; Field pH 9 (Raupach, 0.6); Few, very fine (0-1mm) roots; Clear, Smooth change to -
D1	0.78 - 1.2 m	Strong brown (7.5YR5/6-Moist); Mottles, 10YR58, 2-10% , 0-5mm, Distinct; Mottles, 2-10% ; Sandy clay loam; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Firm consistence; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; , Gypseous, , ; Field pH 9 (Raupach, 1.2); FewGradual, Smooth change to -

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D2t	1.2 - 1.65 m	Strong brown (7.5YR4/6-Moist); Mottles, 7.5YR56, 2-10% , 5-15mm, Faint; Mottles, 2-10% ; Light clay; Strong grade of structure, 10-20 mm, Polyhedral; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Many cutans, >50% of ped faces or walls coated, prominent; Very few (0 - 2 %), Manganiferous, Coarse (6 - 20 mm), Soft segregations; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; , Gypseous, , ; Field pH 9.5 (Raupach, 1.5); Clear, Smooth change to -
D3kt	1.65 - 1.75 m	Reddish brown (5YR4/4-Moist); Mottles, 5YR58, 10-20% , 5-15mm, Prominent; Mottles, 10-20% ; Light clay; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Soft segregations; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; , Gypseous, , ; Soil matrix is Slightly calcareous; Field pH 9.5 (Raupach, 1.75);

Morphological Notes

Observation Notes

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							%
0.03 - 0.18	6.8A		6.3B	6	1.3	0.13				
0.18 - 0.42	7.5A		4.2J	12.6	2.2	0.6		20.8I		2.88
0.42 - 0.78	8.6A									
0.78 - 1.2	8.7A		1.2B	7	0.58	2		14B		14.29
			1E	6.8	0.53	0.88				6.29
1.2 - 1.65	8.8A									
1.65 - 1.75	9.1A									

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			%		
0.03 - 0.18												
0.18 - 0.42												
0.42 - 0.78												
0.78 - 1.2												
1.2 - 1.65												
1.65 - 1.75												

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
0.03 - 0.18									
0.18 - 0.42									
0.42 - 0.78									
0.78 - 1.2									
1.2 - 1.65									
1.65 - 1.75									

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Laboratory Analyses Completed for this profile

10B	Extractable sulfur(mg/kg) - Phosphate extractable sulfur
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
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
15F1_CA	Exchangeable bases by 0.01M silver-thiourea (AgTU)+, no pretreatment for soluble salts
15F1_K	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F1_MG	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F1_NA	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F3	CEC by 0.01M silver-thiourea (AgTU)+
15N1	Exchangeable sodium percentage (ESP)
4A1	pH of 1:5 soil/water suspension