

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** 147 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By:	M. DeCorte	Locality:	
Date Desc.:	06/09/90	Elevation:	455 metres
Map Ref.:	Sheet No. : 8060 GPS	Rainfall:	No Data
Northing/Long.:	7910084 AMG zone: 55	Runoff:	Very rapid
Easting/Lat.:	349186 Datum: AGD66	Drainage:	Moderately well drained

Geology

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

Land Form

Rel/Slope Class:	Undulating low hills 30-90m 3-10%	Pattern Type:	Low hills
Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	Gently inclined
Slope:	9 %	Aspect:	120 degrees

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Mottled Mesotrophic Brown Chromosol Medium Gravelly Loamy Clayey Moderately deep	Principal Profile Form:	Dy3.32
ASC Confidence:	Great Soil Group:	No suitable group

Analytical data are incomplete but reasonable confidence.

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

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Very sparse. *Species includes - Aristida species, Enneapogon species, Themeda triandra Mid Strata - Tree, 1.01-3m, Sparse. *Species includes - Eucalyptus brownii

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

Surface Coarse Fragments: 10-20%, cobbly, 60-200mm, angular,

Profile Morphology

A2j	0 - 0.03 m	Brown (10YR4/3-Moist); ; Sandy loam; Massive grade of structure; Earthy fabric; Many (>5 per 100mm ²) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; 20-50%, medium gravelly, 6-20mm, angular, dispersed, Quartzite, coarse fragments; , Calcareous, , , , Gypseous, , ; Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
A3	0.03 - 0.2 m	; 90-100%, coarse gravelly, 20-60mm, angular, dispersed, Quartzite, coarse fragments; , Calcareous, , , , Gypseous, , , Field pH 6.5 (Raupach, 0.05); Abrupt, Smooth change to -
B21b	0.2 - 0.5 m	Yellowish brown (10YR5/6-Moist); Mottles, 5YR58, 20-50% , 5-15mm, Distinct; Mottles, 20-50% ; Medium clay; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Many (>5 per 100mm ²) Very fine (0.075-1mm) macropores, Dry; Strong consistence; , Calcareous, , , , Gypseous, , , Field pH 6 (Raupach, 0.3); Clear, Smooth change to -
B/C	0.5 - 0.8 m	Brownish yellow (10YR6/8-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Many (>5 per 100mm ²) Very fine (0.075-1mm) macropores, Dry; Strong consistence; , Calcareous, , , , Gypseous, , , Field pH 7.5 (Raupach, 0.8);

Morphological Notes

Observation Notes

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity		%
0.03 - 0.2	6.5A		4.6B	1.6	0.25	0.09			
0.2 - 0.5	6.1A		1.8J	4.9	0.1	0.1	7.5I		1.33
0.5 - 0.8	5.8A		0.99B	5.5	0.06	2.6	14B		18.57
			1E	4	0.03	0.96			6.86

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
		C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		

0.03 - 0.2
0.2 - 0.5
0.5 - 0.8

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 - 0.2
0.2 - 0.5
0.5 - 0.8

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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