

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** T560 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By:	M.G. Cannon	Locality:	
Date Desc.:	05/03/92	Elevation:	212 metres
Map Ref.:	Sheet No. : 8256 GPS	Rainfall:	No Data
Northing/Long.:	7692334 AMG zone: 55	Runoff:	Moderately rapid
Easting/Lat.:	474744 Datum: AGD66	Drainage:	Imperfectly drained

Geology

Exposure Type:	No Data	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	D/Cw	Substrate Material:	Undisturbed soil core, 1 m deep, Sandstone

Land Form

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

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Sodic Calcic Black Dermosol Thin Non-gravelly Clay-loamy Clayey Moderately deep	Principal Profile Form:	Dd3.13
ASC Confidence:	Great Soil Group:	Solodic soil

All necessary analytical data are available.

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

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Very sparse. *Species includes - Sporobolus caroli, TRIODIA SPECIES
?,
Heteropogon contortus Mid Strata - Shrub, 3.01-6m, Very sparse. *Species includes - Eremophila mitchellii,
Lysiphillum carronii

Tall Strata - Tree, 12.01-20m, Mid-dense. *Species includes - Acacia cambagei, Eucalyptus brownii

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A	0 - 0.05 m	Dark brown (7.5YR3/2-Moist); ; Sandy clay loam; Massive grade of structure; Earthy fabric; Dry; Weak consistence; , Calcareous, , , Gypseous, , ; Field pH 6 (Raupach, 0.02); Common, fine (1-2mm) roots; Abrupt, Smooth change to -
B1	0.05 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Dry; Weak consistence; , Calcareous, , , Gypseous, , ; Field pH 6 (Raupach, 0.08); Common, fine (1-2mm) roots; Abrupt, Smooth change to -
B21	0.1 - 0.36 m	Very dark greyish brown (10YR3/2-Moist); ; Light medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Strong grade of structure, 5-10 mm, Angular blocky; Sandy (grains prominent) fabric; Dry; Strong consistence; , Calcareous, , , Gypseous, , ; Field pH 7 (Raupach, 0.2); Few, fine (1-2mm) roots; Clear, Wavy change to -
B22	0.36 - 0.6 m	Brown (10YR5/3-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Angular blocky; Earthy fabric; Dry; Weak consistence; 0-2%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Soft segregations; , Gypseous, , ; Field pH 9 (Raupach, 0.45); Few, fine (1-2mm) roots; Diffuse, Wavy change to -
B23k	0.6 - 1 m	Light olive brown (2.5Y5/4-Moist); ; Medium clay; Massive grade of structure; Earthy fabric; Dry; Weak consistence; Common (10 - 20 %), Calcareous, Fine (0 - 2 mm), Soft segregations; , Gypseous, , ; Field pH 9.5 (Raupach, 0.75); Wavy change to -

Morphological Notes

Observation Notes

DLR1062; B HORIZON NOT DISPERSIVE ; HARD ROCK AT 100cm.

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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 - 0.05	6A	0.04A	7.7B	2.9	1.5	0.12		11.1I	1.08
			6.06J	1.96	0.34	0.03			0.27
0.05 - 0.1	6.41A	0.04A	8.9B	4.3	1.8	0.16			
0.1 - 0.36	7.05A	0.03A	11.5J	5.22	0.52	0.11		20D	0.55
								20.6I	0.53
0.36 - 0.6	8.81A	0.07A	13B	6.3	1.3	0.73			
0.6 - 1	9.74A	0.24A	8.96J	6.75	0.27	1.93		23I	8.39

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk		Particle	Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.05	0.1A	2B			0.11A				34A	31	16	19
0.05 - 0.1												
0.1 - 0.36	0.1A	0.5B							26A	24	14	36
0.36 - 0.6												
0.6 - 1									30A	22	15	32

[illegible]

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Laboratory Analyses Completed for this profile

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
15D2_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; automatic extractor
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)
19A1	Carbonates - rapid titration
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A1	Chloride - 1:5 soil/water extract, potentiometric titration
6B2	Total organic carbon - high frequency induction furnace, volumetric
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
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