

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** 739 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By:	M.G. Cannon	Locality:	
Date Desc.:	16/08/91	Elevation:	290 metres
Map Ref.:	Sheet No. : 8158 GPS	Rainfall:	No Data
Northing/Long.:	7795963 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	410406 Datum: AGD66	Drainage:	No Data

Geology

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

Land Form

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

Surface Soil Condition (dry): Cracking, Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Epicalcareous Self-Mulching Grey Vertosol Non-gravelly	Principal Profile Form:	Ug5.24
Medium fine Very fine Very deep	Great Soil Group:	Grey clay

ASC Confidence:

All necessary analytical data are available.

Site Disturbance: Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation: Low Strata - Tussock grass, 0.51-1m, Sparse. *Species includes - Bothriochloa pertusa, Cenchrus ciliaris, Aristida species

Mid Strata - , , . *Species includes - None recorded

Tall Strata - , , . *Species includes - None Recorded

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.02 m	Dark grey (10YR4/1-Moist); ; Medium heavy clay; Moderate grade of structure, 2-5 mm, Granular; Smooth-ped fabric; Dry; Very weak consistence; , Calcareous, , , , Gypseous, , ; Gradual change to -
A12	0.02 - 0.18 m	Dark grey (10YR4/1-Moist); ; Medium heavy clay; Moderate grade of structure, 50-100 mm, Angular blocky; Smooth-ped fabric; Dry; Strong consistence; , Calcareous, , , , Gypseous, , ; Field pH 9.5 (Raupach, 0.05); Gradual change to -
A13	0.18 - 0.48 m	Grey (10YR5/1-Moist); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Dry; Very strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; Few (2 - 10 %), Calcareous, Fine (0 - 2 mm), Soft segregations; , Gypseous, , ; Soil matrix is Moderately calcareous; Field pH 9.5 (Raupach, 0.3); Diffuse change
B21	0.48 - 1.05 m	Dark grey (10YR4/1-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Very firm consistence; Many cutans, >50% of ped faces or walls coated, distinct; Few (2 - 10 %), Calcareous, Fine (0 - 2 mm), Soft segregations; , Gypseous, , ; Soil matrix is Moderately calcareous; Field pH 9.5 (Raupach, 0.9); Diffuse change to -
B22	1.05 - 1.3 m	Grey (10YR6/1-Moist); Mottles, 10YR62, 10-20% , 5-15mm, Distinct; Mottles, 10-20% ; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; Many cutans, >50% of ped faces or walls coated, distinct; Few (2 - 10 %), Calcareous, Fine (0 - 2 mm), Soft segregations; , Gypseous, , ; Soil matrix is Moderately calcareous; Field pH 9.5 (Raupach, 1.2); Clear change to -
B23	1.3 - 1.7 m	Grey (10YR6/1-Moist); Mottles, 10YR62, 10-20% , 5-15mm, Distinct; Mottles, 10-20% ; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Strong grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Common (10 - 20 %), Manganiferous, , Soft segregations; , Calcareous, , , , Gypseous, , ; Field pH 4 (Raupach, 1.5); Clear change to -

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B24 1.7 - 2.4 m Grey (10YR6/1-Moist); , 7.5YR46; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular;
Strong grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Moist; Firm consistence;
0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; Few cutans,
<10% of ped faces or walls coated, distinct; , Calcareous, , , , Gypseous, , , Field pH 4

Morphological Notes

Observation Notes

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				cmol (+)/kg				%
0.02 - 0.18	7.9A									
0.48 - 1.05	8.8A		18.5J	12.5	0.1	1.4		311		4.52
1.05 - 1.3	8.3A									
1.7 - 2.4	5A		10.9J	10.5	0.1	2.1		24.11		8.71

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Laboratory Analyses Completed for this profile

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