

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** 176 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By:	M. DeCorte	Locality:	
Date Desc.:	09/10/90	Elevation:	455 metres
Map Ref.:	Sheet No. : 7859 GPS	Rainfall:	No Data
Northing/Long.:	7891146 AMG zone: 55	Runoff:	Rapid
Easting/Lat.:	284480 Datum: AGD66	Drainage:	Imperfectly drained

Geology

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

Land Form

Rel/Slope Class:	Undulating rises 9-30m 3-10%	Pattern Type:	Rises
Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	Very gently sloped
Slope:	3 %	Aspect:	340 degrees

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:	Supracalcic Subnatric Brown Sodosol Thick Non-gravelly Sandy Clayey Moderately deep	Mapping Unit:	N/A
ASC Confidence:	All necessary analytical data are available.	Principal Profile Form:	Dy2.43
		Great Soil Group:	Solodic soil

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, Bothriochloa decipiens
Mid Strata - Tree, 1.01-3m, Very sparse. *Species includes - Grevillea striata, Acacia salicina
Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus crebra, Eucalyptus papuana, Grevillea striata

Surface Coarse Fragments: 0-2%, medium gravelly, 6-20mm, angular, Quartz

Profile Morphology

A1	0 - 0.08 m	Dark brown (10YR3/3-Moist); ; Loamy sand; Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.05); Many, fine (1-2mm) roots; Clear, Smooth change to -
A21	0.08 - 0.2 m	Dark yellowish brown (10YR3/4-Moist); ; Loamy sand; Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Weak consistence; 0-2%, medium gravelly, 6-20mm, rounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Many, fine (1-2mm) roots; Clear, Smooth change to -
A22c	0.2 - 0.3 m	Dark yellowish brown (10YR4/4-Moist); ; Sand; Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Weak consistence; 10-20%, medium gravelly, 6-20mm, rounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.25); Common, very fine (0-1mm) roots; Sharp, Tongued change to -
B21t	0.3 - 0.6 m	Dark yellowish brown (10YR4/6-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Columnar; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Veins; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Concretions; , Gypseous, , ; Soil matrix is Moderately calcareous; Field pH 9 (Raupach, 0.5); Few, very fine (0-1mm) roots; Clear, Smooth change to -
B22k	0.6 - 0.88 m	Dark yellowish brown (10YR4/8-Moist); Substrate influence, 5YR58, 0-2% , 0-5mm, Distinct; Substrate influence, 0-2% ; Light clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Strong consistence; Many (20 - 50 %), Calcareous, Medium (2 -6 mm), Concretions; , Gypseous, , ; Soil matrix is Very highly calcareous; Field pH 9.5 (Raupach, 0.88);

Morphological Notes

Observation 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 - 0.08	6.2A		4.1B	2.3	0.39	0.07			
0.2 - 0.3	6.7A								
0.3 - 0.6	8.9A		14.2J	8.5	0.1	3.8		211	18.10
0.6 - 0.88	9.5A								

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Laboratory Analyses Completed for this profile

10B	Extractable sulfur(mg/kg) - Phosphate extractable sulfur
15A2_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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
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