

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** T530 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M.G. Cannon	Locality:
Date Desc.: 10/12/91	Elevation: 270 metres
Map Ref.: Sheet No. : 8256 GPS	Rainfall: No Data
Northing/Long.: 7715550 AMG zone: 55	Runoff: Slow
Easting/Lat.: 461199 Datum: AGD66	Drainage: Imperfectly drained

Geology

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

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: 1 m

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Eutrophic Subnatic Brown Sodosol Very thick Non-gravelly	Principal Profile Form: Dy3.43
Sandy Clayey Very deep	
ASC Confidence:	Great Soil Group: Solodic soil

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, Sparse. *Species includes - Dichanthium species, Chrysopogon fallax, Sporobolus species Mid Strata - Tree, 1.01-3m, Sparse. *Species includes - Acacia species

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

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.06 m	Very dark greyish brown (10YR3/2-Moist); ; Loamy coarse sand; Weak grade of structure, 5-10 mm, Platy; Earthy fabric; Dry; Weak consistence; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; , Calcareous, , , , Gypseous, , ; Field pH 6.5 (Raupach, 0.03); Common, fine (1-2mm) roots; Clear, Wavy change to -
A12	0.06 - 0.17 m	Very dark greyish brown (10YR3/2-Moist); ; Loamy sand; Massive grade of structure; Earthy fabric; Dry; Firm consistence; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; , Calcareous, , , , Gypseous, , ; Field pH 6 (Raupach, 0.1); Common, fine (1-2mm) roots; Clear, Wavy change to -
A13	0.17 - 0.36 m	Dark brown (10YR3/3-Moist); ; Coarse sandy loam; Massive grade of structure; Earthy fabric; Dry; Very weak consistence; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; , Calcareous, , , , Gypseous, , ; Field pH 6 (Raupach, 0.25); Few, very fine (0-1mm) roots; Clear, Wavy change to -
A21j	0.36 - 0.63 m	Light olive brown (2.5Y5/4-Moist); Mottles, 2.5Y64, 2-10% , 5-15mm, Distinct; Mottles, 2-10% ; Coarse sandy loam; Massive grade of structure; Earthy fabric; Dry; Very weak consistence; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; , Calcareous, , , , Gypseous, , ; Field pH 7 (Raupach, 0.5); Few, very fine (0-1mm) roots; Gradual, Wavy change to -
A22e	0.63 - 0.79 m	Greyish brown (10YR5/2-Moist); ; Clayey coarse sand; Massive grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; , Calcareous, , , , Gypseous, , ; Field pH 7 (Raupach, 0.7); Few, very fine (0-1mm) roots; Clear, Wavy change to -
A23q	0.79 - 1.1 m	Brown (10YR5/3-Moist); Mottles, 10YR56, 2-10% , 0-5mm, Faint; Mottles, 2-10% ; Coarse sandy loam (Heavy); Massive grade of structure; Earthy fabric; Dry; Rigid consistence; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; , Calcareous, , , , Gypseous, , ; Fragipan, Uncemented, Continuous, Massive; Field pH 7.5 (Raupach, 1); Clear, Wavy change to -

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B21	1.1 - 1.4 m	Dark greyish brown (2.5Y4/3-Moist); Mottles, 10YR54, 2-10% , 0-5mm, Distinct; Mottles, 2-10% ; Sandy medium clay; Moderate grade of structure, 50-100 mm, Angular blocky; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Dry; Very strong consistence; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; , Calcareous, , , , Gypseous, , , ; Field pH 9 (Raupach, 1.3); Gradual, Wavy change to -
B22	1.4 - 1.73 m	Light olive brown (2.5Y5/4-Moist); Mottles, 2.5Y56, 10-20% , 5-15mm, Distinct; Mottles, 10-20% ; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Dry; Strong consistence; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Many cutans, >50% of ped faces or walls coated, distinct; , Calcareous, , , , Gypseous, , , ; Field pH 9.5 (Raupach, 1.6); Clear, Wavy change to -
Dq	1.73 - 2.1 m	Yellowish brown (10YR5/6-Moist); Mottles, 2.5Y53, 20-50% , 15-30mm, Prominent; Mottles, 2.5YR46, 20-50% ; Sandy clay loam; Massive grade of structure; Earthy fabric; Dry; Rigid consistence; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; , Calcareous, , , , Gypseous, , , ; Fragipan, Uncemented, Continuous, Massive; Field pH 9.5 (Raupach, 2);

Morphological Notes

Observation Notes

DLR1036

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Laboratory Test Results:

[illegible]

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
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 (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
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)
17A1	Total potassium - X-ray fluorescence
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
9A1	Total phosphorus - X-ray fluorescence
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