

**Project Name:** Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD  
**Project Code:** DLR **Site ID:** 5 **Observation ID:** 1  
**Agency Name:** QLD Department of Primary Industries

#### Site Information

**Desc. By:** M. DeCorte  
**Date Desc.:** 20/06/90  
**Map Ref.:** Sheet No. : 8258 GPS  
**Northing/Long.:** 7791104 AMG zone: 55  
**Easting/Lat.:** 474253 Datum: AGD66  
**Locality:**  
**Elevation:** 260 metres  
**Rainfall:** No Data  
**Runoff:** Moderately rapid  
**Drainage:** Well drained

#### Geology

**Exposure Type:** No Data  
**Geol. Ref.:** No Data  
**Conf. Sub. is Parent. Mat.:** No Data  
**Substrate Material:** Undisturbed soil core, Unconsolidated material (unidentified)

#### Land Form

**Rel/Slope Class:** Gently undulating rises 9-30m  
1-3%  
**Pattern Type:** Rises  
**Morph. Type:** Lower-slope  
**Elem. Type:** Foothills  
**Slope:** 1 %  
**Relief:** No Data  
**Slope Category:** Very gently sloped  
**Aspect:** 280 degrees

**Surface Soil Condition (dry):** Hardsetting

#### Erosion:

#### Soil Classification

**Australian Soil Classification:**  
Haplic Calcic Red Chromosol Medium Non-gravelly Clay-loamy  
Clayey Moderately deep  
**Mapping Unit:** N/A  
**Principal Profile Form:** Dr2.13  
**ASC Confidence:**  
All necessary analytical data are available.  
**Great Soil Group:** Red-brown earth

**Site Disturbance:** Extensive clearing, for example poisoning, ringbarking

**Vegetation:** Low Strata - , , . \*Species includes - Bothriochloa pertusa  
Mid Strata - , , . \*Species includes - Acacia farnesiana  
Tall Strata - Tree, 12.01-20m, Very sparse. \*Species includes - Eucalyptus erythrophloia, Eucalyptus crebra,  
Eucalyptus  
platyphylla

**Surface Coarse Fragments:** No surface coarse fragments

#### Profile Morphology

A11	0 - 0.05 m	Very dark brown (10YR2/2-Moist); ; Sandy clay loam; Moderate grade of structure, 2-5 mm, Granular; Smooth-ped fabric; Moist; Weak consistence; Field pH 6 (Raupach, 0.03); Many, fine (1-2mm) roots; Sharp, Smooth change to -
A12	0.05 - 0.21 m	Brown (7.5YR4/2-Moist); ; Sandy clay loam (Heavy); Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moist; Firm consistence; Field pH 6.5 (Raupach, 0.2); Common, fine (1-2mm) roots; Clear, Smooth change to -
B2	0.21 - 0.37 m	Yellowish red (5YR4/6-Moist); ; Light medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moist; Very firm consistence; Few, coarse (>5mm) roots; Abrupt, Smooth change to -
B3k	0.37 - 0.53 m	Strong brown (7.5YR4/6-Moist); ; Fine sandy clay loam; Weak grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moist; Weak consistence; Common (10 - 20 %), Calcareous, Medium (2 -6 mm), Soft segregations; , Gypseous, , ; Soil matrix is Highly calcareous; Field pH 8 (Raupach, 0.4); Common, very fine (0-1mm) roots; Abrupt, Smooth change to -
Dk	0.53 - 0.8 m	Light yellowish brown (2.5Y6/4-Moist); ; Sandy loam; Massive grade of structure; Earthy fabric; Moist; Very weak consistence; 2-10%, medium gravelly, 6-20mm, subrounded, dispersed, Quartz, coarse fragments; Many (20 - 50 %), Calcareous, Medium (2 -6 mm), Soft segregations; , Gypseous, , ; Soil matrix is Highly calcareous; Field pH 9 (Raupach, 0.7);

#### 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		%
0.05 - 0.21	8A		10B	1.7	0.68	0.06			
0.37 - 0.53	7.7A		22E	2.1	0.33	0.27	23B		1.17
			24.2J	1.9	0.4	0.1	28.8I		0.94
									0.43
									0.35
0.53 - 0.8	7.9A								

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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