

**Project Name:** Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD  
**Project Code:** DLR **Site ID:** 134 **Observation ID:** 1  
**Agency Name:** QLD Department of Primary Industries

#### Site Information

<b>Desc. By:</b>	M. DeCorte	<b>Locality:</b>	
<b>Date Desc.:</b>	04/09/90	<b>Elevation:</b>	660 metres
<b>Map Ref.:</b>	Sheet No. : 7857 GPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	7770496 AMG zone: 55	<b>Runoff:</b>	No runoff
<b>Easting/Lat.:</b>	290663 Datum: AGD66	<b>Drainage:</b>	Well drained

#### Geology

<b>Exposure Type:</b>	No Data	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	No Data

#### Land Form

<b>Rel/Slope Class:</b>	Level plain <9m <1%	<b>Pattern Type:</b>	Plain
<b>Morph. Type:</b>	Flat	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	Level
<b>Slope:</b>	1 %	<b>Aspect:</b>	0 degrees

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

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Endocalcareous-Endohypersodic Self-Mulching Black Vertosol Gravelly Medium fine Very fine Very deep	<b>Principal Profile Form:</b>	Ug5.16
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Black earth

No analytical data are available but confidence is fair.

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

**Vegetation:** Low Strata - Tussock grass, <0.25m, Sparse. \*Species includes - Enteropogon species, Paspalum species, Panicum species  
Mid Strata - Tree, 1.01-3m, Isolated clumps. \*Species includes - Melaleuca bracteata

Tall Strata - Tree, 6.01-12m, Mid-dense. \*Species includes - Melaleuca bracteata

**Surface Coarse Fragments:** 10-20%, cobbly, 60-200mm, rounded, Basalt

#### Profile Morphology

A1	0 - 0.15 m	Very dark grey (10YR3/1-Moist); ; Medium heavy clay; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Medium, (5 - 10) mm crack; Dry; Strong consistence; ; Calcareous, , , ; Gypseous, , ; Field pH 8 (Raupach, 0.05); Common, fine (1-2mm) roots; Clear, Smooth change to -
B21	0.15 - 0.7 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Strong grade of structure, 2-5 mm, Lenticular; Smooth-ped fabric; Moderately moist; Strong consistence; ; Calcareous, , , ; Gypseous, , ; Field pH 8.8 (Raupach, 0.3); Few, fine (1-2mm) roots; Clear, Smooth change to -
B22k	0.7 - 1.6 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; Strong grade of structure, 2-5 mm, Lenticular; Smooth-ped fabric; Moderately moist; Strong consistence; Few (2 - 10 %), Calcareous, Medium (2 - 6 mm), Nodules; , Gypseous, , ; Field pH 9.9 (Raupach, 1.2); Few, fine (1-2mm) roots; Gradual, Smooth change to -
B23k	1.6 - 1.95 m	Dark grey (10YR4/1-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Smooth-ped fabric; Moderately moist; Strong consistence; Few (2 - 10 %), Calcareous, Medium (2 - 6 mm), Nodules; , Gypseous, , ; Field pH 9.9 (Raupach, 1.8); Clear, Smooth change to -
B24k	1.95 - 2.2 m	Grey (10YR5/1-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Smooth-ped fabric; Moderately moist; Strong consistence; Common (10 - 20 %), Calcareous, Very coarse (20 - 60 mm), Nodules; , Gypseous, , ; Field pH 9.9 (Raupach, 2.1);

#### Morphological Notes

#### Observation Notes

#### Site Notes

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**Laboratory Test Results:**

Depth m	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
		dS/m	Ca	Mg	K	Na Cmol (+)/kg			
0 - 0.15	8.2A		21B	34	0.61	0.88			
0.15 - 0.7	8.7A		10.4J	32.4	0.2	7.2	48.4I		14.88
0.7 - 1.6	9A		7.1B	42	0.52	18	60B		30.00
			5.4E	40	0.43	13			21.67
1.6 - 1.95	8.9A								
1.95 - 2.2	8.9A								

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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