Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD

Project Code: DLR Site ID: 7 Observation ID: 1

Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M. DeCorte Locality:

Date Desc.: Elevation: 270 metres 20/06/90 Map Ref.: Sheet No.: 8257 GPS Rainfall: No Data Northing/Long.: 7777439 AMG zone: 55 Runoff: Moderately rapid 485918 Datum: AGD66 Poorly drained Easting/Lat.: Drainage:

Geology

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

Land Form

Rel/Slope Class: Gently undulating rises 9-30m Pattern Type: Rises

I-3%

Morph. Type: Mid-slope Relief: No Data

Elem. Type: Hillslope Slope Category: Very gently sloped Slope: 2 % Aspect: 130 degrees

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A
Calcic Mottled-Mesonatric Yellow Sodosol Thick Non-gravelly Principal Profile Form: Dy3.43

Sandy Clayey Deep

ASC Confidence: Great Soil Group: Solodic soil

All necessary analytical data are available.

<u>Site Disturbance:</u> Highly disturbed, for example, quarrying, roadworks, mining, landfill, urban <u>Vegetation:</u> Low Strata - , , . *Species includes - Bothriochloa pertusa, Aristida species

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

Surface Coarse Fragments: 0-2%, fine gravelly, 2-6mm, subangular, Quartz

Profile Morphology

A1p 0 - 0.03 m Brown (10YR4/3-Moist); ; Loamy coarse sand; Weak grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Moist; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Common, fine (1-2mm) roots; Clear, Smooth change to -

A12 0.03 - 0.23 m Brown (7.5YR4/3-Moist); ; Loamy coarse sand; Weak grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Moist; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.05); Common, fine (1-2mm) roots; Clear, Smooth change to -

; Field pH 5.8 (Raupach, 0.05); Common, fine (1-2mm) roots; Clear, Smooth change to -

A21 0.23 - 0.35 m Yellowish brown (10YR5/6-Moist); ; Loamy coarse sand; Massive grade of structure; Earthy fabric; Moist; Very weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 0.3); Gradual, Smooth change to -

A22e 0.35 - 0.45 m Yellowish brown (10YR5/6-Moist); ; Loamy coarse sand; Massive grade of structure; Earthy fabric; Moist; Very weak consistence; 20-50%, fine gravelly, 2-6mm, angular, dispersed,

fabric; Moist; Very weak consistence; 20-50%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Abrupt, Wavy change to -

B21 0.45 - 0.65 m Mottles, 10YR53, 10-20%, 5-15mm, Distinct; Mottles, 10YR64, 10-20%; Medium clay; Weak grade of structure, 20-50 mm, Columnar; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Dry; Very firm consistence; , Calcareous, , ; , Gypseous, , ; Field pH

7 (Raupach, 0.5); Clear, Smooth change to -

B22 0.65 - 1.18 m ; Medium clay; Strong grade of structure, 50-100 mm, Lenticular; Strong grade of structure, 20-

50 mm, Angular blocky; Smooth-ped fabric; Dry; Strong consistence; , Calcareous, , ; ,

Gypseous, , ; Field pH 9.5 (Raupach, 0.9); Clear, Smooth change to -

B3k 1.18 - 1.35 m ; Light medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric;

Dry; Firm consistence; Few (2 - 10 %), Calcareous, Fine (0 - 2 mm), Soft segregations;

Gypseous, , ; Field pH 9.5 (Raupach, 1.35);

Morphological Notes

Observation Notes

Site Notes

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Laboratory Test Results:

Laboratory	1621 K	<u> </u>								
Depth	рН	1:5 EC			Cations		Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca M	Mg	K	Na Cmol (Acidity +)/ka			%
						,	, ,			
0.03 - 0.23	7.4A		2.1B	0.61	0.15	0.06				
0.35 - 0.45	9.6A									
0.45 - 0.65	9.5A		6.1E	7.7	0.14	2.6		19B		13.68
			6.6J	7.6	0.2	3.6		21.91		11.87
										18.95
0.05 4.40	0.04									16.44
0.65 - 1.18 1.18 - 1.35	9.9A 9.9A		5.4B	7.1	0.15	4.5		14B		32.14
1.10 - 1.33	9.9A		5.4B 6E	6.6	0.13	3.4		140		24.29
			OL	0.0	0.13	5.4				24.23
Depth	CaCO3	Organic	Avail.	Total	Total	Tota				Analysis
	•	C	Р.,	P	N	K		GV CS	FS	Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%	
0.00 0.00										
0.03 - 0.23 0.35 - 0.45										
0.35 - 0.45										
0.45 - 0.65										
1.18 - 1.35										
1.10 - 1.55										
Depth	COLE	0-4			olumetric V			K s	sat	K unsat
m		Sat.	0.05 Bar	0.1 Bar	0.5 Bar /g - m3/m	1 Bar จ	5 Bar 15	Bar mn	n/h	mm/h
				9'	9 1110/111	•			,,,,	
0.03 - 0.23										
0.35 - 0.45										
0.45 - 0.65										
0.65 - 1.18										
1.18 - 1.35										

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Laboratory Analyses Completed for this profile

10B 15A2_CA	Extractable sulfur(mg/kg) - Phosphate extractable sulfur Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for
15A2_K 15A2_MG	soluble salts Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_NA 15C1_CA	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts 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