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

Project Code: DLR Site ID: 251 Observation ID: 1

Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M. DeCorte Locality:

Date Desc.: Elevation: 14/05/91 350 metres Map Ref.: Sheet No.: 8157 GPS Rainfall: No Data Northing/Long.: 7771844 AMG zone: 55 Runoff: Moderately rapid Easting/Lat.: 412033 Datum: AGD66 Drainage: Well drained

Geology

ExposureType: No Data Conf. Sub. is Parent. Mat.: No Data

Geol. Ref.: No Data Substrate Material: Undisturbed soil core, Granodiorite

Land Form

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

1-3%

Morph. Type:Mid-slopeRelief:No DataElem. Type:HillslopeSlope Category:Gently inclinedSlope:2 %Aspect:180 degrees

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/AHaplic Eutrophic Red Chromosol Medium Non-gravelly Clay-Principal Profile Form:Dr2.12

loamy Clayey Moderately deep

ASC Confidence: Great Soil Group: Non-calcic brown

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, 0.51-1m, Sparse. *Species includes - Bothriochloa pertusa, Dicanthium fecundum,

Sporobolus species Mid Strata - Tree, 1.01-3m, Very sparse. *Species includes - Eucalyptus crebra,

Eucalyptus erythrophloia, Bursaria incana

Tall Strata - Tree, 6.01-12m, Isolated plants. *Species includes - Eucalyptus crebra, Eucalyptus erythrophloia

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11 0 - 0.05 m Dark reddish brown (5YR2/4-Moist); ; Clay loam; Weak grade of structure, 10-20 mm,

Subangular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Medium (2-5mm) macropores, Dry; Firm consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 0.05); Many, fine

(1-2mm) roots; Clear, Smooth change to -

A12 0.05 - 0.12 m Dark reddish brown (5YR3/3-Moist); ; Clay loam, sandy; Moderate grade of structure, 20-50

mm, Subangular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Medium (2-5mm) macropores, Dry; Firm consistence; , Calcareous, , ; , Gypseous, , ; Many, fine (1-2mm) roots;

Clear, Smooth change to -

B21 0.12 - 0.68 m Dark reddish brown (2.5YR3/4-Moist); ; Medium clay; Strong grade of structure, 20-50 mm,

Angular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Firm consistence; Many cutans, >50% of ped faces or walls coated, prominent; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 0.3); Few, fine (1-2mm) roots;

Clear, Smooth change to -

BC 0.68 - 0.83 m Yellowish red (5YR3/6-Moist); Substrate influence, 5YR46, 10-20%, 0-5mm, Faint; Substrate

influence, 10-20%; Light clay; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Many cutans, >50% of ped faces or walls coated, prominent; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Soft segregations; , Calcareous, , ; , Gypseous, , ; Clear,

Smooth change to -

C 0.83 - 0.96 m ; , Calcareous, , ; , Gypseous, , ; Field pH 8.5 (Raupach, 0.9);

Morphological Notes

Observation Notes

Site Notes

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Laboratory Test Results:

Donth		1:5 EC	Evo	hanaaabl	Cations		Evobongooblo	CEC		ECEC		SP
Depth	pН	1:5 EC		nangeable Ng	Cations K	Na	Exchangeable Acidity	CEC		ECEC		:3P
m		dS/m		5		Cmol (+					Ç	%
0 - 0.1	6.1C 7.2A	0.03A										
0.12 - 0.68	6.4C 7.6A	0.02A	13B	5.5	0.32	0.43						
0.83 - 0.96	7C 8.2A	0.04A										
Depth	CaCO3	Organic C	Avail. P	Total P %	N	Total K %	Density	P: GV	article CS	Size FS %	Analysis Silt	
m	%	%	mg/kg	70	%	70	Mg/m3			70		
0 - 0.1 0.12 - 0.68 0.83 - 0.96		1.1A			0.0	3A			31D 20D			32 59
Depth	COLE							K sat		K unsat		
m		Sat.	0.05 Bar 0.1 Bar 0.5 Bar 1 Bar 5 Bar 15 Bar g/g - m3/m3						mm/h		mm/h	
0 - 0.1												

0.12 - 0.68 0.83 - 0.96

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Laboratory Analyses Completed for this profile

12A1_CU DTPA - extractable copper, zinc, manganese and iron 12A1_FE DTPA - extractable copper, zinc, manganese and iron 12A1_ZN DTPA - extractable copper, zinc, manganese and iron

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

3A1 EC of 1:5 soil/water extract 4A1 pH of 1:5 soil/water suspension

4B2 pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1

5A1 Chloride - 1:5 soil/water extract, potentiometric titration

6A1 Organic carbon - Walkley and Black

7A2 Total nitrogen - semimicro Kjeldahl , automated colour

P10_PB_C Clay (%) - Plummet balance

P10_PB_CS Coarse sand (%) - Plummet balance
P10_PB_FS Fine sand (%) - Plummet balance
P10_PB_Z Silt (%) - Plummet balance