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

Project Code: DLR Site ID: 45 Observation ID: 1

Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M. DeCorte Locality:

 Date Desc.:
 18/07/90
 Elevation:
 300 metres

 Map Ref.:
 Sheet No.: 8057 GPS
 Rainfall:
 No Data

 Northing/Long.:
 7749698 AMG zone: 55
 Runoff:
 No runoff

Easting/Lat.: 384024 Datum: AGD66 Drainage: Imperfectly drained

**Geology** 

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

**Land Form** 

 Rel/Slope Class:
 Level plain <9m <1%</th>
 Pattern Type:
 Plain

 Morph. Type:
 Flat
 Relief:
 No Data

 Elem. Type:
 Plain
 Slope Category:
 Level

 Slope:
 1 %
 Aspect:
 90 degrees

Surface Soil Condition (dry): Hardsetting

**Erosion:** 

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/ABleached-Sodic Mesotrophic Grey Kandosol Thick Non-Principal Profile Form:Gn2.95

gravelly Loamy Clay-loamy Very deep

ASC Confidence: Great Soil Group: Grey earth

Analytical data are incomplete but reasonable confidence.

**<u>Site Disturbance:</u>** No effective disturbance other than grazing by hoofed animals

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Very sparse. \*Species includes - Aristida species, Heteropogon

contortus

Mid Strata - Tree, 1.01-3m, Sparse. \*Species includes - Eucalyptus melanophloia, Eucalyptus erythrophloia

Tall Strata - Tree, 12.01-20m, Sparse. \*Species includes - Eucalyptus crebra, Eucalyptus melanophloia,

Eucalyptus

erythrophloia

Surface Coarse Fragments: No surface coarse fragments

## **Profile Morphology**

| Profile | e Morphology  |  |
|---------|---------------|--|
| A11     | 0 - 0.2 m     | Very dark greyish brown (10YR3/2-Moist); ; Loamy fine sand; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moist; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.04); Common, fine (1-2mm) roots; Gradual, Smooth change to -   |
| A12     | 0.2 - 0.45 m  | Dark yellowish brown (10YR4/4-Moist); ; Fine sandy clay loam; Weak grade of structure, 10-20 mm, Polyhedral; Smooth-ped fabric; Moist; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.3); Common, fine (1-2mm) roots; Gradual, Smooth   |
| A2e     | 0.45 - 0.6 m  | Greyish brown (10YR5/2-Moist); ; Fine sandy clay loam; Weak grade of structure, 10-20 mm, Polyhedral; Smooth-ped fabric; Moist; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 0.5); Common, very fine (0-1mm) roots; Abrupt, Smooth change to -  |
| B21     | 0.6 - 0.95 m  | Light brownish grey (10YR6/2-Moist); Mottles, 7.5YR58, 0-2%, 0-5mm, Faint; Mottles, 0-2%; Clay loam, fine sandy; Weak grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Wet; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.75); Gradual, Smooth change to -  |
| B22     | 0.95 - 1.32 m | Dark greyish brown (10YR4/2-Moist); ; Clay loam, fine sandy; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Wet; Firm consistence; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 1.15); Abrupt, Smooth change to -   |
| В3      | 1.32 - 1.6 m  | Light brownish grey (2.5Y6/2-Moist); Mottles, 2.5Y76, 10-20%, 0-5mm, Faint; Mottles, 10-20%; Clay loam, fine sandy; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Moist; Very firm consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Calcareous, Coarse (6 - 20 mm), Nodules; , Gypseous, , ; Field pH 8 (Raupach, 1.5); |

Morphological Notes
Observation Notes

**Site Notes** 

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## **Laboratory Test Results:**

| Laboratory   |              |              | Fire  |                   | 0-4:                 | _                   |                        | 050               | F0F0 | ESP                             |
|--|--------------|--------------|---|-------------------|----------------------|---------------------|------------------------|-------------------|------|---------------------------------|
| Depth  | рН           | 1:5 EC       |   | nangeabi∈<br>∕Ig  | Cations K            | Na E                | xchangeable<br>Acidity | CEC               | ECEC | ESP                             |
| m  |              | dS/m         |   | 3                 |                      | Cmol (+)/kg         |                        |                   |      | %                               |
| 0 - 0.2<br>0.2 - 0.45  | 5.8A<br>5.8A |              | 2.1B  | 1                 | 0.33                 | 0.04                |                        |                   |      |                                 |
| 0.45 - 0.6<br>0.6 - 0.95   | 6.1A<br>6.8A |              | 1.4B<br>1.6E<br>1.5J                        | 1.9<br>2.2<br>2.1 | 0.07<br>0.06<br>0.1  | 0.79<br>0.63<br>0.7 |                        | 8B<br>4.6l        |      | 9.88<br>17.17<br>7.88<br>13.70  |
| 0.95 - 1.32  | 7.3A         |              | 1.9B<br>2.7E                                | 1.7<br>2.1        | 0.05<br>0.04         | 1.1<br>0.83         |                        | 8B                |      | 8.75<br>15.22<br>13.75<br>10.38 |
| 1.32 - 1.6   | 8.4A         |              |   |                   |                      |                     |                        |                   |      |                                 |
| Depth  | CaCO3        | Organic<br>C | Avail.<br>P                                 | Total<br>P        | Total<br>N           | Total<br>K          | Bulk<br>Density        | Particle<br>GV CS |      | Analysis<br>Silt Clay           |
| m  | %            | %            | mg/kg                                       | %                 | %                    | %                   | Mg/m3                  |                   | %    | •                               |
| 0 - 0.2<br>0.2 - 0.45<br>0.45 - 0.6<br>0.6 - 0.95<br>0.95 - 1.32<br>1.32 - 1.6 |              |              |   |                   |                      |                     |                        |                   |      |                                 |
| Depth  | COLE         |              | Gravimetric/Volumetric Water Contents K sat |                   |                      |                     |                        | K unsat           |      |                                 |
| m  |              | Sat.         | 0.05 Bar                                    | 0.1 Bar<br>g/     | 0.5 Bar<br>/g - m3/m | 1 Bar<br>3          | 5 Bar 15               | Bar<br>m          | m/h  | mm/h                            |
| 0 - 0.2<br>0.2 - 0.45<br>0.45 - 0.6<br>0.6 - 0.95<br>0.95 - 1.32               |              |              |   |                   |                      |                     |                        |                   |      |                                 |

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## **Laboratory Analyses Completed for this profile**

| 10B<br>15A2_CA   | Extractable sulfur(mg/kg) - Phosphate extractable sulfur Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts   |
|--|---|
| 15A2_K<br>15A2_MG<br>15A2_NA<br>15C1_CA                        | 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 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<br>15C1_K   | CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts<br>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<br>15F1_K<br>15F1_MG<br>15F1_NA<br>15F3<br>15N1<br>4A1 | Exchangeable bases by 0.01M silver-thiourea (AgTU)+, no pretreatment for soluble salts Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts CEC by 0.01M silver-thiourea (AgTU)+ Exchangeable sodium percentage (ESP) pH of 1:5 soil/water suspension |