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

Project Code: DLR Site ID: 170 Observation ID: 1

Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M. DeCorte Locality:

Date Desc.: 21/09/90 Elevation: 560 metres Sheet No.: 7860 GPS Map Ref.: Rainfall: No Data Northing/Long.: 7940945 AMG zone: 55 Runoff: No runoff 282384 Datum: AGD66 Well drained Easting/Lat.: Drainage:

Geology

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

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

Land Form

Rel/Slope Class:Level plain <9m <1%</th>Pattern Type:PlainMorph. Type:FlatRelief:No DataElem. Type:PlainSlope Category:LevelSlope:1 %Aspect:0 degrees

Surface Soil Condition (dry): Cracking, Self-mulching

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A
Haplic Self-Mulching Black Vertosol Non-gravelly Medium fine Principal Profile Form: Uq5.14

Very fine Deep

ASC Confidence: Great Soil Group: Black earth

All necessary analytical data are available.

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

Vegetation: Low Strata - Sedge, <0.25m, Very sparse. *Species includes - Cyperus species, Cymbopogan species,

Dichanthium

Mid Strata - Shrub, 0.51-1m, Isolated plants. *Species includes - Acacia farnesiana

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

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11 0 - 0.03 m Very dark grey (10YR3/1-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm,

Granular; Smooth-ped fabric; Coarse, (10 - 20) mm crack; Many (>5 per 100mm2) Medium (2-5mm) macropores, Dry; Strong consistence; , Calcareous, , ; , Gypseous, , ; Many, very fine (0-

1mm) roots; Abrupt, Smooth change to -

A12 0.03 - 0.3 m Very dark greyish brown (2.5Y3/2-Moist); ; Heavy clay; Strong grade of structure, 2-5 mm,

Lenticular; Smooth-ped fabric; Coarse, (10 - 20) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Strong consistence; Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach,

0.05); Many, very fine (0-1mm) roots; Clear, Smooth change to -

B21 0.3 - 1 m Very dark greyish brown (2.5Y3/2-Moist); ; Heavy clay; Strong grade of structure, 10-20 mm,

Lenticular; Strong grade of structure, 2-5 mm, Lenticular; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Many cutans, >50% of ped faces or walls coated; , Calcareous, , ; , Gypseous, , ; Field pH 7.5

(Raupach, 0.6); Few, very fine (0-1mm) roots; Clear, Smooth change to -

B22 1 - 1.3 m Dark greyish brown (2.5Y4/2-Moist); ; Heavy clay; Strong grade of structure, 10-20 mm,

Lenticular; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Many cutans, >50% of ped faces or walls coated; Calcareous, ; ; Gypseous, ; ; Field pH 8.5 (Raupach, 1.2); Clear, Smooth change to -

C 1.3 - 2 m ;, Calcareous, , ; , Gypseous, , ; Field pH 8.5 (Raupach, 1.5);

Morphological Notes

Observation Notes

Site Notes

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Laboratory Test Results:

| Laboratory | I GOL KE | <u> </u> | | | | | | | | | | |
|---|----------------------------|--------------|----------------------------|----------------------|-----------------------------|---------------------------|------------------------|--------------|---------|------------|---------|----------------------|
| Depth | pН | 1:5 EC | | hangeable Mg | Cations K | E: Na | xchangeable Acidity | CEC | E | ECEC | | ESP |
| m | | dS/m | | 9 | | Cmol (+)/ | | | | | | % |
| 0.03 - 0.3 0.3 - 1 1 - 1.3 1.3 - 2 | 6.6A 7.1A 8A 8.5A | | 14B 15.9J 19B 19E | 20 23 23 21 | 0.45 0.1 0.21 0.19 | 0.61 1.7 3.7 3.2 | | 40.1I 48B | | | | 4.24 7.71 6.67 |
| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | | ticle : | Size FS | Analysi | s Clay |
| m | % | % | mg/kg | % | % | % | Mg/m3 | GV | 03 | % | Siit | Clay |
| 0.03 - 0.3 0.3 - 1 1 - 1.3 1.3 - 2 | | | | | | | | | | | | |
| Depth | COLE | | Grav | imetric/Vo | olumetric W | later Conte | ents | | K sa | ıt | K unsa | ıt |
| m | | Sat. | 0.05 Bar | | 0.5 Bar /g - m3/m3 | 1 Bar 3 | 5 Bar 15 | Bar | mm/l | h | mm/h | ı |
| 0.03 - 0.3 0.3 - 1 1 - 1.3 1.3 - 2 | | | | | | | | | | | | |

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pH of 1:5 soil/water suspension

Laboratory Analyses Completed for this profile

4A1

| 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) |
| 4 4 4 | all of 4.5 and business and an all of 4.5 and business and business and business are all of 4.5 and business and business are all of 4.5 and business are all of |