

**Project Name:** BRUCEDALE/LADYSMITH/GRIGGWARD - Soil Landscape Modelling  
**Project Code:** Wagga\_SLM **Site ID:** LS63 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

**Site Information**

|                        |                       |                   |                         |
|------------------------|-----------------------|-------------------|-------------------------|
| <b>Desc. By:</b>       | McKane, Dermot        | <b>Locality:</b>  |                         |
| <b>Date Desc.:</b>     | 15/07/93              | <b>Elevation:</b> | 215 metres              |
| <b>Map Ref.:</b>       | Sheet No. : 8327 DGPS | <b>Rainfall:</b>  | No Data                 |
| <b>Northing/Long.:</b> | 6108307 AMG zone: 55  | <b>Runoff:</b>    | Slow                    |
| <b>Easting/Lat.:</b>   | 544058 Datum: AGD66   | <b>Drainage:</b>  | Moderately well drained |

**Geology**

|                      |                       |                                    |         |
|----------------------|-----------------------|------------------------------------|---------|
| <b>ExposureType:</b> | Undisturbed soil core | <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> | No Data   | <b>Pattern Type:</b>   | No Data     |
| <b>Morph. Type:</b>     | Mid-slope | <b>Relief:</b>         | No Data     |
| <b>Elem. Type:</b>      | Hillslope | <b>Slope Category:</b> | No Data     |
| <b>Slope:</b>           | 6 %       | <b>Aspect:</b>         | 270 degrees |

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

**Erosion:**

**Soil Classification**

|   |  |                                |     |
|---|--|--------------------------------|-----|
| <b>Australian Soil Classification:</b>  |  | <b>Mapping Unit:</b>           | N/A |
| Bleached-Mottled Yellow Chromosol Medium Non-gravelly<br>Loamy Clayey Very deep |  | <b>Principal Profile Form:</b> | N/A |
| <b>ASC Confidence:</b>  |  | <b>Great Soil Group:</b>       | N/A |
| Confidence level not specified  |  |                                |     |

**Site Disturbance:** Complete clearing. Pasture, native or improved, cultivated at some stage

**Vegetation:**

**Surface Coarse Fragments:**

**Profile Morphology**

|     |               |  |
|-----|---------------|--|
| A1  | 0 - 0.14 m    | Brown (7.5YR4/4-Moist); ; Fine sandy loam; Massive grade of structure; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular platy, dispersed, Siltstone, coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots;  |
| A2  | 0.14 - 0.27 m | Strong brown (7.5YR5/6-Moist); Pink (7.5YR8/4-Dry); ; Fine sandy loam; Massive grade of structure; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Common (1-5 per 100mm2) Fine (1-2mm) macropores, Dry; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular platy, dispersed, Siltstone, coarse fragments; Field pH 6.5 (Raupach); Common, very fine (0-1mm) roots; |
| B21 | 0.27 - 0.65 m | Brownish yellow (10YR6/8-Moist); ; Light clay; Weak grade of structure, 2-5 mm, Platy; Smooth-ped fabric; Dry; Weak consistence; 2-10%, fine gravelly, 2-6mm, subangular platy, dispersed, Siltstone, coarse fragments; Field pH 6.5 (Raupach); Common, very fine (0-1mm) roots;   |
| B22 | 0.65 - 2 m    | Yellowish brown (10YR5/6-Moist); Mottles, 10-20% , Prominent; Mottles, 10-20% , Distinct; Light clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Dry; Very firm consistence; Many cutans, >50% of ped faces or walls coated; Common (10 - 20 %), Manganiferous, , ; Field pH 7 (Raupach);  |

**Morphological Notes**

**Observation Notes**

**Site Notes**

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**Laboratory Test Results:**

| Depth       | pH    | 1:5 EC | Ca   | Exchangeable Mg | Cations K | Na          | Exchangeable Acidity | CEC   | ECEC | ESP  |
|-------------|-------|--------|------|-----------------|-----------|-------------|----------------------|-------|------|------|
| m           |       | dS/m   |      |                 |           | Cmol (+)/kg |                      |       |      | %    |
| 0 - 0.14    | 5.55A | 0.038A | 2.5J | 0.32            | 0.19      | 0.04        |                      | 5.3I  |      | 0.75 |
| 0.14 - 0.27 | 6.12A | 0.015A | 1.4J | 0.33            | 0.13      | 0.01        |                      | 5.7I  |      | 0.18 |
| 0.27 - 0.65 | 6.39A | 0.026A | 4.8J | 3.3             | 0.37      | 0.13        |                      | 10.1I |      | 0.29 |
| 0.65 - 2    | 7.78A | 0.046A | 7.3J | 8               | 0.84      | 0.92        |                      | 17.1I |      | 5.38 |

| Depth       | CaCO3 | Organic | Avail. | Total | Total | Total | Bulk    | Particle | Size | Analysis |      |      |
|-------------|-------|---------|--------|-------|-------|-------|---------|----------|------|----------|------|------|
| m           | %     | C       | P      | P     | N     | K     | Density | GV       | CS   | FS       | Silt | Clay |
|             |       | %       | mg/kg  | %     | %     | %     | Mg/m3   |          |      | %        |      |      |
| 0 - 0.14    |       | 1.08C   |        |       |       |       |         |          | 82I  |          | 4    | 14   |
| 0.14 - 0.27 |       | 0.18C   |        |       |       |       |         |          | 82I  |          | 4    | 14   |
| 0.27 - 0.65 |       | 0.21C   |        |       |       |       |         |          | 50I  |          | 12   | 38   |
| 0.65 - 2    |       | 0.13C   |        |       |       |       |         |          | 50I  |          | 12   | 38   |

[illegible]

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**Laboratory Analyses Completed for this profile**

|          |  |
|----------|--|
| 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)+   |
| 15L1     | Base saturation percentage (BSP)   |
| 15N1     | Exchangeable sodium percentage (ESP)   |
| 3A1      | EC of 1:5 soil/water extract   |
| 4A1      | pH of 1:5 soil/water suspension  |
| 6B3      | Total organic carbon - high frequency induction furnace, infrared                      |
| P10_NR_C | Clay (%) - Not recorded  |
| P10_NR_S | Sand (%) - Not recorded  |
| P10_NR_Z | Silt (%) - Not recorded  |