

Project Name: Bradshaw  
Project Code: BRD Site ID: 401 Observation ID: 1  
Agency Name: CSIRO Division of Soils (SA)

## Site Information

|                        |                            |                   |              |
|------------------------|----------------------------|-------------------|--------------|
| <b>Desc. By:</b>       | I. Hollingsworth           | <b>Locality:</b>  |              |
| <b>Date Desc.:</b>     | 18/10/96                   | <b>Elevation:</b> | No Data      |
| <b>Map Ref.:</b>       | Sheet No. : 5067-4 1:50000 | <b>Rainfall:</b>  | No Data      |
| <b>Northing/Long.:</b> | 8333672 AMG zone: 52       | <b>Runoff:</b>    | Very slow    |
| <b>Easting/Lat.:</b>   | 6689930 Datum: AGD66       | <b>Drainage:</b>  | Well drained |

## Geology

|                      |              |                                    |                                |
|----------------------|--------------|------------------------------------|--------------------------------|
| <b>ExposureType:</b> | Auger boring | <b>Conf. Sub. is Parent. Mat.:</b> | No Data                        |
| <b>Geol. Ref.:</b>   | Paa          | <b>Substrate Material:</b>         | Auger boring, Porous, Alluvium |

## Land Form

|                         |                                   |                        |                    |
|-------------------------|-----------------------------------|------------------------|--------------------|
| <b>Rel/Slope Class:</b> | Gently undulating plains <9m 1-3% | <b>Pattern Type:</b>   | Plain              |
| <b>Morph. Type:</b>     | Flat                              | <b>Relief:</b>         | 0 metres           |
| <b>Elem. Type:</b>      | Fan                               | <b>Slope Category:</b> | Very gently sloped |
| <b>Slope:</b>           | 1 %                               | <b>Aspect:</b>         | 90 degrees         |

**Surface Soil Condition (dry):** Surface crust, Hardsetting

**Erosion:**

## Soil Classification

|   |                                |     |
|---|--------------------------------|-----|
| <b>Australian Soil Classification:</b>                                  | <b>Mapping Unit:</b>           | 34  |
| Palic Regolithic Leptic Tenosol Medium Non-gravelly Loamy<br>Loamy Deep | <b>Principal Profile Form:</b> | N/A |

**ASC Confidence:** All necessary analytical data are available. **Great Soil Group:** N/A

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

|                           |  |
|---------------------------|--|
| <b><u>Vegetation:</u></b> | Low Strata - Tussock grass, 0.26-0.5m, Sparse. *Species includes - Themeda triandra, Chrysopogon fallax, |
| Plectrachne               | pungens  |
| volucris                  | Mid Strata - Shrub, 1.01-3m, Mid-dense. *Species includes - Carissa lanceolata, Terminalia               |

Tall Strata - Tree, 6.01-12m, Sparse. \*Species includes - *Eucalyptus polycarpa*

**Surface Coarse Fragments:** 0-2%, stony, 200-600mm, rounded, Sandstone

## Profile Morphology

|     |             |  |
|-----|-------------|--|
| A11 | 0 - 0.1 m   | Brown (7.5YR4/2-Moist); , 0-0% ; Sandy loam; Massive grade of structure; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Non-plastic; Non-sticky; 0-2%, fine gravelly, 2-6mm, angular tabular, Siltstone, coarse fragments; Field pH 7 (Raupach); Common, very fine (0-1mm) roots; Clear, Smooth change to -                   |
| A12 | 0.1 - 0.2 m | Brown (7.5YR4/4-Moist); Light brown (7.5YR6/4-Dry); , 0-0% ; Sandy loam (Light); Massive grade of structure; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Non-plastic; Non-sticky; 0-2%, fine gravelly, 2-6mm, angular tabular, dispersed, Siltstone, coarse fragments; Field pH 7 (Raupach); Few, very fine (0-1mm) roots; |
| B1  | 0.2 - 0.3 m | Yellowish red (5YR5/6-Moist); , 0-0% ; Sandy loam (Light); Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Non-plastic; Non-sticky; 0-2%, fine gravelly, 2-6mm, angular tabular, Siltstone, coarse fragments; Field pH 7 (Raupach); Few, very fine (0-1mm) roots; Gradual, Smooth change to -         |
| B2  | 0.3 - 1 m   | Yellowish red (5YR5/8-Moist); , 0-0% ; Fine sandy loam; Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Non-plastic; Non-sticky; 0-2%, fine gravelly, 2-6mm, angular tabular, Siltstone, coarse fragments; Field pH 7 (Raupach); Few, very fine (0-1mm) roots;  |

## Morphological Notes

### Observation Notes

## REFER NOTES....

## Site Notes

PHOTO NO: SURFACE - 16 (ROLL 4), THEMEDA TRIANDRA, TERMIUALRA VOLUCRIS, CHRYSOPOGN FALLAX, E.POLYCARPA, CARISSA LANCEOLATA, E.CABBAGII, SELUMIA VER..., PLECTRACHUE PUNG..., TEROSOL, LEPTIC, REGOLITHIC. PALIC.....

**Observation ID: 1**

**Laboratory Test Results:**

| Depth     | pH           | 1:5 EC | Exchangeable Ca | Exchangeable Mg | Cations K | Na          | Exchangeable Acidity | CEC  | ECEC | ESP  |
|-----------|--------------|--------|-----------------|-----------------|-----------|-------------|----------------------|------|------|------|
| m         |              | dS/m   |                 |                 |           | Cmol (+)/kg |                      |      |      | %    |
| 0 - 0.1   | 4.8C<br>5.8A | 0.02A  | 1.96C           | 0.48            | 0.18      | 0.05        |                      | 4.1K | 2.7D | 1.22 |
| 0.2 - 0.3 | 4.6C<br>5.7A | 0.01A  | 0.49C           | 0.23            | 0.11      | 0.05        |                      | 1.6K | 0.9D | 3.13 |

| Depth     | CaCO3 | Organic<br>C | Avail.<br>P | Total<br>P | Total<br>N | Total<br>K | Bulk<br>Density | Particle |       | Size    | Analysis |      |
|-----------|-------|--------------|-------------|------------|------------|------------|-----------------|----------|-------|---------|----------|------|
| m         | %     | %            | mg/kg       | %          | %          | %          | Mg/m3           | GV       | CS    | FS<br>% | Silt     | Clay |
| 0 - 0.1   |       | 0.85C        | <2E         |            |            |            |                 |          | 33.8A | 54.4    | 5.6      | 4.2  |
| 0.2 - 0.3 |       | 0.14C        | <2E         |            |            |            |                 |          | 39A   | 45.9    | 7.8      | 7    |

[illegible]

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**Laboratory Analyses Completed for this profile**

|           |   |
|-----------|---|
| 15B1_CA   | Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts |
| 15B1_K    | Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts  |
| 15B1_MG   | Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts  |
| 15B1_NA   | Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts  |
| 15I3      | CEC measurement - automated determination of ammonium and chloride ions   |
| 15J_BASES | Sum of Bases  |
| 2A1       | Air-dry moisture content  |
| 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  |
| 6B3       | Total organic carbon - high frequency induction furnace, infrared   |
| 9B2       | Bicarbonate-extractable phosphorus - automated colour   |
| P10_CF_C  | Clay (%) - Coventry and Fett pipette method   |
| P10_CF_CS | Coarse sand (%) - Coventry and Fett pipette method  |
| P10_CF_FS | Fine sand (%) - Coventry and Fett pipette method  |
| P10_CF_Z  | Silt (%) - Coventry and Fett pipette method   |