

Project Name: Bradshaw
Project Code: BRD **Site ID:** 109A **Observation ID:** 1
Agency Name: CSIRO Division of Soils (SA)

Site Information

| | | | |
|------------------------|----------------------------|-------------------|---------------------|
| Desc. By: | I. Hollingsworth | Locality: | |
| Date Desc.: | 12/10/96 | Elevation: | No Data |
| Map Ref.: | Sheet No. : 4966-1 1:50000 | Rainfall: | No Data |
| Northing/Long.: | 8302762 AMG zone: 52 | Runoff: | Very slow |
| Easting/Lat.: | 653589 Datum: AGD66 | Drainage: | Imperfectly drained |

Geology

| | | | |
|----------------------|--------------|------------------------------------|---------------------------|
| ExposureType: | Auger boring | Conf. Sub. is Parent. Mat.: | No Data |
| Geol. Ref.: | Paa | Substrate Material: | Slightly porous, Alluvium |

Land Form

| | | | |
|-------------------------|---------------------|------------------------|----------------|
| Rel/Slope Class: | Level plain <9m <1% | Pattern Type: | Alluvial plain |
| Morph. Type: | Flat | Relief: | No Data |
| Elem. Type: | Plain | Slope Category: | Level |
| Slope: | 0 % | Aspect: | No Data |

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

Erosion:

Soil Classification

| | | | |
|---|--|--------------------------------|-----|
| Australian Soil Classification: | | Mapping Unit: | 51 |
| Haplic Self-Mulching Black Vertosol Non-gravelly Very fine Very fine Very deep | | Principal Profile Form: | 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

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Closed or dense. *Species includes - Iseilema species, Chrysopogon fallax,

Dicanthium fecundum, Panicum decompositum, Aristida latifolia, Ventilago viminalis

Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eulalia aurea, Lysiphyllum cunninghamii, Acacia bidwillii,

Eucalyptus terminalis

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

| | | |
|----|---------------|--|
| A1 | 0 - 0.03 m | Dark greyish brown (2.5Y4/2-Moist); , 0-0% ; Heavy clay; Strong grade of structure, <2 mm, Granular; Rough-ped fabric; Extremely coarse, (50 - 100) mm crack; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Dry; Very plastic; Normal plasticity; Very sticky; Field pH 7 (Raupach); Clear change to - |
| B2 | 0.03 - 0.65 m | Dark greyish brown (2.5Y4/2-Moist); , 0-0% ; Heavy clay; Strong grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Extremely coarse, (50 - 100) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very plastic; Normal plasticity; Very sticky; Many cutans, >50% of ped faces or walls coated, distinct; Few (2 - 10 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; Field pH 9 (Raupach); Common, fine (1-2mm) |

Morphological Notes

Observation Notes

Site Notes

PHOTO NO; SURFACE - 21, PROFILE - , ISFOLEMA SPP - FLINDERS GRASS, CHRINO POLO....., DIC.....

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Laboratory Test Results:

| Depth m | pH | 1:5 EC dS/m | Ca | Exchangeable Mg | Cations K | Na Cmol (+)/kg | Exchangeable Acidity | CEC | ECEC | ESP % |
|------------|--------------|----------------|--------|--------------------|--------------|-------------------|-------------------------|-------|-------|----------|
| 0 - 0.03 | 6.5C 7.2A | 0.04A | 16.8C | 8.72 | 0.78 | 0.09 | | 33.1K | 26.4D | 0.27 |
| 0.1 - 0.2 | 6.7C 7.6A | 0.03A | 19.26E | 8.28 | 0.39 | 0.23 | | 34.3K | 28.2D | 0.67 |

| Depth m | CaCO3 % | Organic C % | Avail. P mg/kg | Total P % | Total N % | Total K % | Bulk Density Mg/m3 | Particle | | Size FS % | Analysis | | |
|------------|------------|-------------------|----------------------|-----------------|-----------------|-----------------|--------------------------|----------|----|-----------------|----------|------|------|
| | | | | | | | | GV | CS | | Silt | Clay | |
| 0 - 0.03 | | 0.72C | 2E | | | | | | | 5.3A | 28.6 | 21.1 | 44.3 |
| 0.1 - 0.2 | | 0.42C | <2E | | | | | | | 7.1A | 26.6 | 21.3 | 45.4 |

[illegible]

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Laboratory Analyses Completed for this profile

| | |
|-----------|--|
| 15B1_CA | Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 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 |
| 15C1_CA | Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 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 |
| 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 |