**Project Name:** WQR
**Project Code:** WQR **Site ID:** B496 **Observation ID:** 1
**Agency Name:** CSIRO Division of Soils (QLD)

## Site Information

**Desc. By:** G.D. Hubble
**Date Desc.:** 17/11/62
**Map Ref.:** Sheet No. : 8148 1:100000
**Northing/Long.:** 146.091666666667
**Easting/Lat.:** -24.8583333333333
**Locality:**
**Elevation:** 411 metres
**Rainfall:** 485
**Runoff:** Moderately rapid
**Drainage:** Moderately well drained

## Geology

**ExposureType:** Soil pit
**Geol. Ref.:** No Data
**Conf. Sub. is Parent. Mat.:** No Data
**Substrate Material:** Auger boring, 0.76 m deep,Mudstone

## Land Form

**Rel/Slope Class:** No Data
**Morph. Type:** Upper-slope
**Elem. Type:** Hillslope
**Slope:** 1.75 %
**Pattern Type:** Rises
**Relief:** 30 metres
**Slope Category:** No Data
**Aspect:** No Data

**Surface Soil Condition (dry):** Surface crust, Self-mulching

**Erosion:**

## Soil Classification

**Australian Soil Classification:**
Epicalcareous Self-Mulching Grey Vertosol
**ASC Confidence:**
All necessary analytical data are available.
**Mapping Unit:** N/A
**Principal Profile Form:** Ug5.22
**Great Soil Group:** Grey clay

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

**Vegetation:** Low Strata - Tussock grass, , Closed or dense. *Species includes - Dichanthium sericeum
Tall Strata - Tree, , Isolated clumps. *Species includes - Atalaya hemiglauca, Acacia victoriae

**Surface Coarse Fragments:** 0-2%, , , Substrate material

## Profile Morphology

| | | |
|---|---|---|
| AB | 0 - 0.15 m | Dark greyish brown (10YR4/2-Moist); ; Medium heavy clay; Strong grade of structure, 2-5 mm, Granular; Dry; Loose consistence; 0-2%, medium gravelly, 6-20mm, Substrate material, coarse fragments; Very few (0 - 2 %), Calcareous, , Nodules; Field pH 8.2 (pH meter); Gradual change to - |
| B2 | 0.15 - 0.36 m | Dark brown (10YR3/3-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, , Nodules; Field pH 8.7 (pH meter); Diffuse change to - |
| B2 | 0.36 - 0.61 m | Dark greyish brown (10YR4/2-Moist); ; Heavy clay; Strong grade of structure, Lenticular; Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 8 (pH meter); Diffuse change |
| B2 | 0.61 - 0.76 m | Dark greyish brown (10YR4/2-Moist); , 10YR56, 20-50% , 0-5mm, Prominent; , 20-50% , 0-5mm, Prominent; Medium heavy clay; Strong grade of structure, Lenticular; Dry; Strong consistence; Very few (0 - 2 %), Calcareous, , Soft segregations; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 7.6 (pH meter); Clear change to - |
| C | 0.76 - 1.07 m | Light brownish grey (2.5Y6/2-Moist); , 10YR66, 20-50% , 5-15mm, Prominent; , 10YR53, 20-50% , 5-15mm, Prominent; Silty clay loam; Massive grade of structure; Field pH 7.6 (pH meter); Gradual change to - |
| C | 1.07 - 1.83 m | Yellowish brown (10YR5/5-Moist); , 10YR62, 20-50% , 5-15mm, Prominent; , 10YR66, 20-50% , 5-15mm, Prominent; Silty clay loam; Massive grade of structure; Field pH 7.3 (pH meter); |

## Morphological Notes

## Observation Notes

0-15CM GRANULAR GRADING TO BLOCKY STRUCTURE WITH FRAGILE 3MM CRUST OR SURFACE SEAL:

## Site Notes

TAMBO

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## Laboratory Test Results:

| Depth | pH | 1:5 EC | Exchangeable Cations | | | | Exchangeable Acidity | CEC | ECEC | ESP |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Ca | Mg | K | Na | | | | |
| m | | dS/m | Cmol (+)/kg | | | | | | | % |
| 0 - 0.15 | 8.2H | 0.03B | 43K | 3.5 | 1.1 | 0.8 | 3.5D | | | |
| 0.15 - 0.36 | 8.7H | 0.06B | 41.6K | 5.1 | 0.67 | 2.5 | 0D | | | |
| 0.36 - 0.61 | 8H | 0.32B | 41.4K | 4.4 | 0.67 | 3.9 | 2.6D | | | |
| 0.61 - 0.76 | 7.6H | 1.05B | | | | | | | | |
| 0.76 - 1.07 | 7.6H | 1.13B | | | | | | | | |
| 1.07 - 1.83 | 7.3H | 1.26B | | | | | | | | |

| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | Particle Size Analysis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | GV | CS | FS | Silt | Clay |
| m | % | % | mg/kg | % | % | % | Mg/m3 | | | % | | |
| 0 - 0.15 | 0.2C | 0.72A | 29C | 0.027F | 0.09B | | | 0 | 1C | 26 | 15 | 57 |
| 0.15 - 0.36 | 0.5C | 0.62A | | | 0.08B | | | 0 | 1C | 23 | 15 | 45 |
| 0.36 - 0.61 | 0.8C | 0.59A | 21C | 0.025F | 0.07B | | | 0 | 1C | 25 | 17 | 56 |
| 0.61 - 0.76 | | 0.44A | | | 0.06B | | | 0 | 1C | 19 | 16 | 39 |
| 0.76 - 1.07 | | 0.17A | | | 0.04B | | | 0 | 0.6C | 26 | 16 | 33 |
| 1.07 - 1.83 | | | | 0.046F | | | | | | | | |

| Depth | COLE | Gravimetric/Volumetric Water Contents | | | | | | K sat | K unsat |
|---|---|---|---|---|---|---|---|---|---|
| | | Sat. | 0.05 Bar | 0.1 Bar | 0.5 Bar | 1 Bar | 5 Bar | 15 Bar | |
| m | | g/g - m3/m3 | | | | | | mm/h | mm/h |
| 0 - 0.15 | | | | | | | | | |
| 0.15 - 0.36 | | | | | | | | | |
| 0.36 - 0.61 | | | | | | | | | |
| 0.61 - 0.76 | | | | | | | | | |
| 0.76 - 1.07 | | | | | | | | | |
| 1.07 - 1.83 | | | | | | | | | |

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**Laboratory Analyses Completed for this profile**

| | |
|---|---|
| 15_NR_CA | Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded |
| 15_NR_H | Hydrogen Cation - meq per 100g of soil - Not recorded |
| 15_NR_K | Exch. basic cations (K++) - meq per 100g of soil - Not recorded |
| 15_NR_MG | Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded |
| 15_NR_NA | Exch. basic cations (Na++) - meq per 100g of soil - Not recorded |
| 19B_NR | Calcium Carbonate (CaCO3) - Not recorded |
| 2A1 | Air-dry moisture content |
| 3_NR | Electrical conductivity or soluble salts - Not recorded |
| 4_NR | pH of soil - Not recorded |
| 5_NR | Water soluble Chloride - Cl(%) - Not recordede |
| 6A1 | Organic carbon - Walkley and Black |
| 7_NR | Total nitrogen (%) - Not recorded |
| 9_NR | Available P (mg/kg) - Not recorded |
| 9A_NR | Total element - P(%) - Not recorded |
| P10_GRAV | Gravel (%) |
| P10_NR_C | Clay (%) - Not recorded |
| P10_NR_CS | Coarse sand (%) - Not recorded |
| P10_NR_FS | Fine sand (%) - Not recorded |
| P10_NR_Z | Silt (%) - Not recorded |