

Site Disturbance: No effective disturbance other than grazing by hoofed animals
Vegetation: $\quad$ Low Strata - Tussock grass, , . *Species includes - Heteropogon contortus, Aristida species

## Surface Coarse Frag Profile Morphology

| A11 | 0-0.1 m | Very dark greyish brown (10YR3/2-Moist); ; Coarse sandy loam (Light); Massive grade of structure; Moist; Very weak consistence; 10-20\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Common, very fine ( $0-1 \mathrm{~mm}$ ) roots; Gradual change to - |
| :---: | :---: | :---: |
| A12 | 0.1-0.2 m | Dark greyish brown (10YR4/2-Moist); ; Loamy coarse sand; Massive grade of structure; Moist; Very weak consistence; 10-20\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Common, very fine ( $0-1 \mathrm{~mm}$ ) roots; Gradual change to - |
| A13 | 0.2-0.3m | Brown (10YR5/3-Moist); ; Loamy coarse sand; Massive grade of structure; Moist; Very weak consistence; 10-20\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Common, very fine ( $0-1 \mathrm{~mm}$ ) roots; Gradual change to - |
| A14 | 0.3-0.4m | Brown (10YR5/3-Moist); ; Coarse sand; Massive grade of structure; Moist; Very weak consistence; 10-20\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Common, very fine ( $0-1 \mathrm{~mm}$ ) roots; Abrupt change to - |
| A2 | 0.4-0.6m | Brown (10YR5/3-Moist); ; Coarse sand; Massive grade of structure; Moist; Very weak consistence; 10-20\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Very few (0-2 \%), Manganiferous, Medium (2-6 mm), Nodules; Few, very fine ( $0-1 \mathrm{~mm}$ ) roots; Clear change to - |
| A2 | 0.6-0.75 m | Brown (10YR5/3-Moist); ; Clayey coarse sand; Massive grade of structure; Moist; Very weak consistence; 10-20\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Very few (0-2 \%), Manganiferous, Medium (2-6 mm), Nodules; Few, very fine ( $0-1 \mathrm{~mm}$ ) roots; Gradual change to |
| A2 | 0.75-0.9m | Pale brown (10YR6/3-Moist); ; Coarse sand; Massive grade of structure; Moist; Very weak consistence; 20-50\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Few (2-10 \%), Manganiferous, Coarse (6-20 mm), Nodules; |
| A2 | 0.9-1 m | Yellowish brown (10YR5/4-Moist); ; Coarse sand; Massive grade of structure; Moist; Very weak consistence; 20-50\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Few (2-10 \%), Manganiferous, Coarse (6-20 mm ), Nodules; Gradual change to - |
| A2 | 1-1.2m | Light yellowish brown (10YR6/4-Moist); ; Coarse sand; Massive grade of structure; Moist; Very weak consistence; 20-50\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; |


|  | Name: <br> Code: <br> Name: | NAR <br> NAR <br> CSIR | Site ID: B811 Observation ID: 1 RO Division of Soils (QLD) |
| :---: | :---: | :---: | :---: |
| A2 | 1.2-1.31 m |  | Light yellowish brown (10YR6/4-Moist); ; Clayey coarse sand; Massive grade of structure; Wet; Very weak consistence; 20-50\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Very few (0-2 \%), Manganiferous, Medium (2-6 mm), Nodules; Abrupt change to - |
| B2 | 1.31-1.5m |  | Strong brown (7.5YR5/6-Moist); , 2.5Y63, 20-50\%, 5-15mm, Faint; , 20-50\%, 5-15mm, Faint; Coarse sandy clay loam; Massive grade of structure; Wet; Firm consistence; 20-50\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Few (2-10 \%), Manganiferous, Medium (2-6 $\mathrm{mm})$, Soft segregations; Gradual change to - |
| B2 | 1.5-1.65 m |  | Strong brown (7.5YR5/6-Moist); , 10YR62, 20-50\% , 15-30mm, Distinct; , 20-50\% , 15-30mm, Distinct; Coarse sandy clay loam; Massive grade of structure; Moist; Firm consistence; 20-50\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Very few (0-2 \%), Manganiferous, Medium (2 -6 mm ), Soft segregations; Gradual change to - |
| B3 | 1.65-1.8 m |  | Yellowish brown (10YR5/6-Moist); , 10YR72, 20-50\% , 15-30mm, Prominent; , 20-50\%, 1530 mm , Prominent; Coarse sandy clay loam; Weak grade of structure, 50-100 mm, Angular blocky; Moist; Strong consistence; 20-50\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Very few (0-2 \%), Manganiferous, Medium (2-6 mm), Nodules; Other pans, Weakly cemented; Gradual change to - |
| B3 | 1.8-1.98 m |  | Light brownish grey (2.5Y6/2-Moist); , 7.5YR56, 20-50\% , 15-30mm, Prominent; , 20-50\% , 1530 mm , Prominent; Coarse sandy clay loam; Massive grade of structure; Dry; Very strong consistence; 20-50\%, fine gravelly, 2-6mm, angular, Gravel, coarse fragments; Very few (0-2 $\%$ ), Ferromanganiferous, Coarse (6-20 mm ), Nodules; Other pans, Weakly cemented; Gradual change to - |
| B3 | 1.98-2.1 m |  | Yellowish brown (10YR5/4-Moist); , 10YR62, 20-50\% , 5-15mm, Distinct; , 7.5YR56, 20-50\% , 515 mm , Distinct; Coarse sandy loam; Massive grade of structure; Dry; Very strong consistence; $20-50 \%$, fine gravelly, $2-6 \mathrm{~mm}$, angular, Gravel, coarse fragments; Other pans, Weakly cemented; Clear change to - |
| B3 | 2.1-2.21 m |  | Yellowish red (5YR4/6-Moist); , 2.5Y62, 20-50\%, 15-30mm, Distinct; , 7.5YR56, 20-50\% , 1530mm, Distinct; Clayey coarse sand; Massive grade of structure; Dry; Very strong consistence; $10-20 \%$, fine gravelly, $2-6 \mathrm{~mm}$, angular, Gravel, coarse fragments; Other pans, Weakly cemented; |
| D | 2.21-2.3m |  | Yellowish red (5YR4/6-Moist); , 2.5Y62, 20-50\% , 15-30mm, Distinct; , 7.5YR84, 20-50\% , 1530mm, Distinct; Clayey coarse sand; Massive grade of structure; Dry; Very strong consistence; $20-50 \%$, fine gravelly, $2-6 \mathrm{~mm}$, angular, Gravel, coarse fragments; |

## Morphological Notes

## Observation Notes

PARENT MATERIAL COLLUVIUM FROM ADAMELLITE. D HORIZON ADAMELLITE IN SITU. QUARTZ WITH SOME COARSE FELDSPARS THROUGHOUT. 165-221CM BRITTLE PAN LIKE DENSIPAN WITH SOME LBG ILLUVIAL CUTANS ON INFREQUENT CLEAVAGES. LAYERS RENUMBERED 7-10-92

## Site Notes

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| Project Name: | NAR |  |  |
| :--- | :--- | :--- | :--- |
| Project Code: | NAR | Site ID: B811 | Observation ID: 1 |
| Agency Name: | CSIRO Division of Soils (QLD) |  |  |

## Laboratory Test Results:

| Depth | pH | 1:5 EC | Ca | Exchangeable Cations |  | Na | Exchangeable Acidity | CEC | ECEC | ESP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| m |  | dS/m |  |  |  | Cmo | )/kg |  |  | \% |
| 0-0.1 | 6.3 H | <0.02A | 1.7K | 0.38 | 0.13 | 0 | 4.7D |  |  |  |
| 0.1-0.2 | 6.4 H | <0.02A |  |  |  |  |  |  |  |  |
| 0.2-0.3 | 6.4 H | $<0.02 \mathrm{~A}$ | 0.84K | 0.4 | 0.07 | 0.02 | 5D |  |  |  |
| 0.3-0.4 | 6.5 H | <0.02A |  |  |  |  | 6.6D |  |  |  |
| 0.4-0.6 | 6.6 H | <0.02A |  |  |  |  |  |  |  |  |
| 0.6-0.75 | 6.6 H | <0.02A |  |  |  |  |  |  |  |  |
| 0.75-0.9 | 6.8 H | <0.02A |  |  |  |  |  |  |  |  |
| 0.9-1 | 6.8 H | <0.02A |  |  |  |  |  |  |  |  |
| 1-1.2 | 6.8 H | <0.02A |  |  |  |  |  |  |  |  |
| 1.2-1.31 | 6.7 H | <0.02A |  |  |  |  |  |  |  |  |
| 1.31-1.5 | 5.6 H | <0.02A | 1K | 4.1 | 0.15 | 0.28 |  |  |  |  |
| 1.5-1.65 | 4.8 H | 0.039A |  |  |  |  |  |  |  |  |
| 1.65-1.8 | 4.5 H | 0.094A | 0.71K | 4 | 0.07 | 0.41 |  |  |  |  |
| 1.8-1.98 | 4.5 H | 0.154A | 1.3K | 5.6 | 0.14 | 0.63 |  |  |  |  |
| 1.98-2.1 | 4.7H | 0.136A |  |  |  |  |  |  |  |  |
| 2.1-2.21 | 5H | 0.062A |  |  |  |  |  |  |  |  |
| 2.21-2.3 | 5.3 H | 0.039A |  |  |  |  |  |  |  |  |


| Depth | CaCO3 | Organic | Avail. | Total | Total | Total | Bulk | Particle |  | Size | Analysis |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| m | \% | $\begin{aligned} & \text { C } \\ & \% \end{aligned}$ | $\mathrm{mg} / \mathrm{kg}$ | $\begin{aligned} & \mathbf{P} \\ & \% \end{aligned}$ | $\begin{gathered} \mathbf{N} \\ \% \end{gathered}$ | $\begin{aligned} & \mathbf{K} \\ & \% \end{aligned}$ | Density Mg/m3 | GV | CS | $\begin{gathered} \text { FS } \\ \% \end{gathered}$ | Silt | Clay |
| 0-0.1 |  | 0.4A | 8B | 260F | 0.033 B | 4.2B | 1.40 | 16 | 65C | 24 | 8 | 3 |
| 0.1-0.2 |  | 0.24A | 2B |  | 0.02B |  | 1.10 | 19 | 57C | 31 | 8 | 4 |
| 0.2-0.3 |  | 0.15A | 2B |  | 0.018 B |  | 1.50 | 19 | 67C | 23 | 7 | 3 |
| 0.3-0.4 |  |  |  |  |  |  | 1.60 | 15 | 73C | 18 | 7 | 3 |
| 0.4-0.6 |  | 0.07A | 3B | 170F | 0.008B | 4.12B | 1.60 | 17 | 61C | 29 | 7 | 3 |
| 0.6-0.75 |  |  |  |  |  |  | 1.80 | 20 |  |  |  |  |
| 0.75-0.9 |  |  |  |  |  |  | 1.60 | 29 |  |  |  |  |
| 0.9-1 |  | 0.04A | 3B |  | 0.008 B |  | 1.50 | 41 | 63C | 27 | 7 | 3 |
| 1-1.2 |  |  |  |  |  |  | 1.60 | 28 |  |  |  |  |
| 1.2-1.31 |  | 0.04A | 3B |  | 0.008B |  | 1.90 | 42 | 62C | 29 | 9 | 4 |
| 1.31-1.5 |  |  |  | 240F |  | 3.66B | 1.90 | 23 | 54C | 22 | 4 | 21 |
| 1.5-1.65 |  |  |  |  |  |  | 1.90 | 27 | 58C | 19 | 5 | 20 |
| 1.65-1.8 |  |  |  |  |  |  | 1.80 | 36 | 46C | 28 | 9 | 17 |
| 1.8-1.98 |  |  | 1B | 200F |  | 3.22B |  | 28 | 51C | 18 | 11 | 21 |
| 1.98-2.1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.1-2.21 |  |  |  |  |  |  |  | 21 | 52C | 21 | 18 | 11 |
| 2.21-2.3 |  |  |  |  |  |  |  | 30 | 64C | 21 | 11 | 6 |


| 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 |  |  |  |  | - m3/m3 |  |  |  | mm/h | mm/h |

0-0.1
0.1-0.2
0.2-0.3
0.3-0.4
0.4-0.6
$0.6-0.75$
0.75-0.9

Project Name:
NAR
Project Code: NAR Site ID: B811 Observation ID: 1
Agency Name: CSIRO Division of Soils (QLD)
0.9-1

1-1.2
1.2-1.31
1.31-1.5
1.5-1.65
1.65-1.8
1.8-1.98
1.98-2.1
2.1-2.21
2.21-2.3

| Project Name: | NAR |  |  |
| :--- | :--- | :--- | :--- |
| Project Code: | NAR | Site ID: B811 | Observation ID: 1 |
| Agency Name: | CSIRO Division of Soils (QLD) |  |  |

Laboratory Analyses Completed for this profile

| 10A_NR | Total element - S(\%) - Not recorded |
| :---: | :---: |
| 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 ( $\mathrm{K}++$ ) - 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 ( $\mathrm{Na++}$ ) - meq per 100g of soil - Not recorded |
| 17A _NR | Total element - K(\%) - Not recorded |
| 2A1 | Air-dry moisture content |
| 3A1 | EC of 1:5 soil/water extract |
| 4_NR | pH of soil - Not recorded |
| 5_NR | Water soluble Chloride - $\mathrm{Cl}(\%)$ - Not recordede |
| 6A1 | Organic carbon - Walkley and Black |
| 7_NR | Total nitrogen (\%) - Not recorded |
| 9A_NR | Total element - P(\%) - Not recorded |
| 9G_BSES | Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES) |
| 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 |
| P3A_NR | Bulk density - Not recorded |

