Project Name: BOB

Project Code: BOB Site ID: B509 Observation ID: 1

Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: R. Paton Locality:

 Date Desc.:
 04/11/63
 Elevation:
 137 metres

 Map Ref.:
 Sheet No.: 9442
 1:100000
 Rainfall:
 798

Northing/Long.: 152.66555555556 Runoff: Moderately rapid Easting/Lat.: -27.946388888889 Drainage: Imperfectly drained

Geology

ExposureType: Soil pit Conf. Sub. is Parent. Mat.: No Data

Geol. Ref.: Jw Substrate Material: Auger boring, 1.3 m deep,Siltstone

Land Form

Rel/Slope Class:Rolling hills 90-300m 10-32%Pattern Type:HillsMorph. Type:Mid-slopeRelief:91 metresElem. Type:HillslopeSlope Category:No DataSlope:10.5 %Aspect:No Data

Surface Soil Condition (dry):

**Erosion:** 

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/AEpicalcareous Self-Mulching Black VertosolPrincipal Profile Form:Dd3.13ASC Confidence:Great Soil Group:Grey clay

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation:

Tall Strata - Tree, 6.01-12m, Mid-dense. \*Species includes - Acacia harpophylla

Surface Coarse Fragments: No surface coarse fragments

**Profile Morphology** 

A1 0 - 0.03 m Very dark brown (10YR2/3-Dry); ; Clay loam (Heavy); Strong grade of structure, <2 mm, Granular; Dry; Loose consistence; 0-2%, fine gravelly, 2-6mm, angular, Substrate material, coarse fragments; Field pH 6 (pH meter); Many, fine (1-2mm) roots; Sharp change to -

B2 0.03 - 0.13 m Very dark grey (10YR3/1-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Polyhedral; Dry; Very firm consistence; 2-10%, fine gravelly, 2-6mm, angular, Substrate material, coarse fragments; Field pH 6.3 (pH meter); Many, fine (1-2mm) roots; Clear, Wavy change to -

B2 0.13 - 0.25 m Very dark grey (10YR3/1-Moist); ; Heavy clay; Strong grade of structure, 5-10 mm, Polyhedral; Moderately moist; Strong consistence; 2-10%, fine gravelly, 2-6mm, angular, Substrate material, coarse fragments; Field pH 8 (pH meter); Many, fine (1-2mm) roots; Clear, Irregular change to

B2 0.25 - 0.64 m Dark grey (10YR4/1-Moist); ; Heavy clay; Strong grade of structure, Lenticular; Moderately moist; Strong consistence; 0-2%, fine gravelly, 2-6mm, angular, Substrate material, coarse fragments; Very few (0 - 2 %), Calcareous, , Soft segregations; Field pH 8.6 (pH meter); Common, fine (1-2mm) roots; Gradual change to -

osimion, mio (\* 2mm) rooto, oradaar shango to

B2 0.64 - 0.79 m Dark grey (10YR4/1-Moist); ; Heavy clay; Strong grade of structure, Lenticular; Moderately moist; Strong consistence; 2-10%, fine gravelly, 2-6mm, angular, Substrate material, coarse fragments; Very few (0 - 2 %), Calcareous, , Soft segregations; Field pH 8.6 (pH meter);

Common, fine (1-2mm) roots; Gradual change to -

B2 0.79 - 1.07 m Dark greyish brown (2.5Y4/2-Moist); ; Medium clay; Moderate grade of structure, Lenticular; Strong grade of structure, 10-20 mm, Polyhedral; Moderately moist; Very firm consistence; 2-

10%, medium gravelly, 6-20mm, angular, Substrate material, coarse fragments; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.8 (pH meter); Common, fine (1-2mm) roots;

Gradual change to -

B2 1.07 - 1.27 m Pale brown (10YR6/3-Moist); ; Medium clay; Moderate grade of structure, Lenticular; Strong

grade of structure, 10-20 mm, Polyhedral; Moderately moist; Very firm consistence; 2-10%, medium gravelly, 6-20mm, angular, Substrate material, coarse fragments; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.8 (pH meter); Common, fine (1-2mm) roots;

Gradual change to -

вов **Project Name:** 

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Light yellowish brown (10YR6/4-Moist); ; Light medium clay; Massive grade of structure; Moist; Firm consistence; Very few (0 - 2 %), Calcareous, , Soft segregations; Field pH 9 (pH meter); 1.27 - 1.83 m

Gradual change to -

Brownish yellow (10YR6/6-Moist); ; Light clay; Massive grade of structure; Moist; Firm consistence; Field pH 7.4 (pH meter); С 1.83 - 2.13 m

## **Morphological Notes Observation Notes**

Site Notes KALBAR

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## **Laboratory Test Results:**

Donth		1:5 EC	Ev	hangeable	Cations	_	vohongoobl	e CEC	=	CEC	ESP
Depth	рН	1:5 EC	Ca	nangeable Mg	K	Na =	xchangeabl Acidity	e CEC	Ε'	CEC	ESP
m		dS/m		_		Cmol (+)	/kg				%
0 000	01.1	0.400									
0 - 0.03 0.03 - 0.13	6H 6.3H	0.13B 0.04B	36.5K	11	0.95	1.21	15.1D				
0.13 - 0.25	8H	0.04B 0.16B	30.31	11	0.33	1.21	13.10				
0.25 - 0.64	8.6H	0.33B	29.2K	19.8	0.27	6.9	4.4D				
0.64 - 0.79	8.6H	0.36B									
0.79 - 1.07	8.8H	0.38B									
1.07 - 1.27 1.27 - 1.83	8.8H 9H	0.37B 0.3B									
1.83 - 2.13	9⊓ 7.4H	0.3B 0.27B									
1.00 2.10	7111	0.275									
Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	D.	article S	ize An	alveie
Бериі	CaCOS	C	P Avaii.	P	N	K	Density				aiysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%	•
0 000											
0 - 0.03 0.03 - 0.13		4.81A	32C	0.074F	0.45	3B		4	4C	12	18 52
0.03 - 0.13	0.5C	4.017	320	0.0741	0.43	30		7	40	12	10 32
0.25 - 0.64	1.6C	0.87A		0.021F	0.12	2B		2	4C	11	18 61
0.64 - 0.79	0.4C										
0.79 - 1.07	2.6C										
1.07 - 1.27 1.27 - 1.83	2.3C 1C										
1.83 - 2.13	0.1C										
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	g - m3/m3	3			mm/h	n	nm/h
0 - 0.03											
0.03 - 0.13											
0.13 - 0.25											
0.25 - 0.64											
0.64 - 0.79											
0.79 - 1.07 1.07 - 1.27											
1.07 - 1.27											
1.83 - 2.13											

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## **Laboratory Analyses Completed for this profile**

Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded Hydrogen Cation - meq per 100g of soil - Not recorded 15 NR CA

15\_NR\_H

15\_NR\_K Exch. basic cations (K++) - med per 100g of soil - Not recorded Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded Exch. basic cations (Na++) - meq per 100g of soil - Not recorded 15 NR MG 15\_NR\_NA

19B\_NR Calcium Carbonate (CaCO3) - Not recorded

2 LOI Loss on Ignition (%) Air-dry moisture content 2A1

3\_NR Electrical conductivity or soluble salts - Not recorded

4\_NR pH of soil - Not recorded

Water soluble Chloride - Cl(%) - Not recordede Organic carbon - Walkley and Black 5\_NR

6A1 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 P10\_NR\_FS Coarse sand (%) - Not recorded Fine sand (%) - Not recorded P10\_NR\_Z Silt (%) - Not recorded