

Project Name: WQR
Project Code: WQR **Site ID:** B490 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.D. Hubble	Locality:	
Date Desc.:	21/11/61	Elevation:	No Data
Map Ref.:	Sheet No. : 8254 1:100000	Rainfall:	533
Northing/Long.:	146.840277777778	Runoff:	Slow
Easting/Lat.:	-21.880555555556	Drainage:	Imperfectly drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	Auger boring, 4 m deep, Clay

Land Form

Rel/Slope Class:	Gently undulating plains <9m 1-3%	Pattern Type:	Plain
Morph. Type:	No Data	Relief:	No Data
Elem. Type:	Plain	Slope Category:	No Data
Slope:	0 %	Aspect:	No Data

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

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Epicalcareous-Endoacidic Self-Mulching Brown Vertosol		Principal Profile Form:	Ug5.34
ASC Confidence:		Great Soil Group:	Brown clay
All necessary analytical data are available.			

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

Vegetation: Low Strata - , , . *Species includes - *Astrebala lappacea*, *Dichanthium sericeum*
Tall Strata - Tussock grass, 6.01-12m, Closed or dense. *Species includes - None Recorded

Surface Coarse Fragments: 2-10%, fine gravelly, 2-6mm, , Substrate material

Profile Morphology

AB	0 - 0.1 m	Dark brown (10YR3/3-Moist); ; Heavy clay; Strong grade of structure, 2-5 mm, Granular; Dry; Very weak consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 7.5 (pH meter); Clear change to -
B2	0.1 - 0.46 m	Dark brown (7.5YR3/3-Moist); ; Heavy clay; Strong grade of structure, 20-50 mm, Polyhedral; Strong grade of structure, 5-10 mm, Polyhedral; Dry; Strong consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8 (pH meter); Diffuse change to -
B2	0.46 - 0.84 m	Dark brown (7.5YR3/3-Moist); ; Heavy clay; Strong grade of structure, 50-100 mm, Lenticular; Strong grade of structure, 10-20 mm, Lenticular; Dry; Strong consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 7.9 (pH meter); Diffuse change to -
B2	0.84 - 1.22 m	Red (2.5YR4/5-Moist); ; Heavy clay; 10-20 mm, Lenticular; Dry; Strong consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 7.3 (pH meter); Diffuse change to -
B2	1.22 - 1.68 m	Reddish brown (2.5YR4/4-Dry); , 10YR51, 20-50% , 5-15mm, Distinct; , 20-50% , 5-15mm, Distinct; Heavy clay; 5-10 mm, Lenticular; Dry; Strong consistence; Few (2 - 10 %), Gypseous, , Crystals; Field pH 6.9 (pH meter); Diffuse change to -
B2	1.68 - 2.21 m	Dark red (2.5YR3/7-Dry); , 10YR51, 20-50% , 5-15mm, Prominent; , 20-50% , 5-15mm, Prominent; Heavy clay; 5-10 mm, Lenticular; Moderately moist; Firm consistence; Very few (0 - 2 %), Gypseous, , Crystals; Field pH 5.7 (pH meter); Diffuse change to -
B2	2.21 - 2.67 m	Grey (10YR6/1-Dry); , 10R36, 20-50% , 5-15mm, Prominent; , 10R46, 20-50% , 5-15mm, Prominent; Heavy clay; 5-10 mm, Lenticular; Moderately moist; Firm consistence; Field pH 5.2 (pH meter); Diffuse change to -
B2	2.67 - 3.12 m	Grey (10YR6/1-Dry); , 10R36, 20-50% , 5-15mm, Prominent; , 20-50% , 5-15mm, Prominent; Heavy clay; 5-10 mm, Lenticular; Moderately moist; Firm consistence; Field pH 5.2 (pH meter); Diffuse change to -

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B2	3.12 - 3.56 m	Grey (10YR6/1-Dry); , 10R46, 20-50% , 5-15mm, Prominent; , 20-50% , 5-15mm, Prominent; Heavy clay; 5-10 mm, Lenticular; Moderately moist; Firm consistence; Field pH 5.2 (pH meter); Diffuse change to -
B2	3.56 - 4.01 m	Grey (10YR6/1-Dry); , 2.5YR36, 20-50% , 5-15mm, Prominent; , 20-50% , 5-15mm, Prominent; Heavy clay; 5-10 mm, Lenticular; Moderately moist; Firm consistence; Field pH 5.3 (pH meter);

Morphological Notes

Observation Notes

0-10CM FRAGILE SURFACE CRUST5-7MM THICK OVER GRANULAR GRADING TO POLYHEDRAL STRUCTURE:

Site Notes

ELGIN DOWNS

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				CMol (+)/kg				%
0 - 0.1	7.5H	0.05B	25.2K	14.9	1.34	3.26	5.6D			
0.1 - 0.46	8H	0.24B								
0.46 - 0.84	7.9H	0.67B	23.3K	13.5	1.2	9	7D			
0.84 - 1.22	7.3H	1.75B								
1.22 - 1.68	6.9H	2.14B	28.6K	13.1	1	10.2	0D			
1.68 - 2.21	5.7H	1.11B								
2.21 - 2.67	5.2H	1.08B								
2.67 - 3.12	5.2H	1.09B								
3.12 - 3.56	5.2H	1.11B								
3.56 - 4.01	5.3H	1.13B								

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk Density	Particle		Size	Analysis	
	%	C %	P mg/kg	P %	N %	K %		GV	CS		FS %	Silt
m							Mg/m3					
0 - 0.1	0.1C	0.6A	3C	0.013F	0.068B			0	2C	19	14	66
0.1 - 0.46		0.5A	1C		0.058B							
0.46 - 0.84		0.1C	0.31A		2C	0.039B			0	1C	18	14
0.84 - 1.22		0.02A	5C		0.022B							
1.22 - 1.68		0A	8C	0.014F	0.019B			0	0.5C	15	11	72
1.68 - 2.21			10C		0.02B							
2.21 - 2.67		0A	10C	0.024F	0.023B							
2.67 - 3.12			6C		0.023B							
3.12 - 3.56		0A	5C	0.032F	0.023B							
3.56 - 4.01			5C		0.025B							

[illegible]

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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 recorded
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