Project Name: **Barossa Valley II, S.A.**
Project Code: **BA1** **Site ID:** **A49** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (SA)**

Site Information

Desc. By:	C.B. Wells	**Locality:**	
Date Desc.:	24/05/54	**Elevation:**	No Data
Map Ref.:	Sheet No. : SI54-9 1:250000	**Rainfall:**	0
Northing/Long.:	138.925	**Runoff:**	Moderately rapid
Easting/Lat.:	-34.5144444444445	**Drainage:**	Poorly drained

Geology

ExposureType:	No Data	**Conf. Sub. is Parent. Mat.:**	No Data
Geol. Ref.:	No Data	**Substrate Material:**	No Data

Land Form

Rel/Slope Class:	Undulating low hills 30-90m 3-10%	**Pattern Type:**	Low hills
Morph. Type:	Upper-slope	**Relief:**	No Data
Elem. Type:	Hillslope	**Slope Category:**	Steep
Slope:	0 %	**Aspect:**	No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Calcic Mesonatric Grey Sodosol
ASC Confidence:
Analytical data are incomplete but reasonable confidence.

Mapping Unit: N/A
Principal Profile Form: Dd1.13
Great Soil Group: Solodized solonetz

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A	0 - 0.11 m	Greyish brown (10YR5/2-Moist); Light brownish grey (10YR6/2-Dry); ; Loamy fine sand; 5-10 mm, Granular; Strong consistence; Field pH 7 (pH meter);
B1	0.11 - 0.22 m	Very dark grey (10YR3/1-Moist); ; Sandy medium clay; Strong grade of structure, 20-50 mm, Prismatic; Strong consistence; Moderately plastic; Field pH 8 (pH meter); Gradual change to -
B1	0.22 - 0.38 m	Grey (10YR5/1-Moist); ; Medium clay; Strong grade of structure, 100-200 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Strong consistence; Moderately plastic; Field pH 8.5 (pH meter); Gradual change to -
B2	0.38 - 0.51 m	; Medium clay; Strong grade of structure, 100-200 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Strong consistence; Moderately plastic; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 9 (pH meter); Gradual change to -
Bk	0.51 - 0.66 m	; Medium clay; Strong grade of structure, 100-200 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Strong consistence; Moderately plastic; Few (2 - 10 %), Calcareous, , Soft segregations; Field pH 9 (pH meter); Diffuse change to -
BC	0.66 - 0.79 m	; Medium clay; Strong grade of structure, 100-200 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Strong consistence; Moderately plastic; Very few (0 - 2 %), Calcareous, , Soft segregations; Field pH 9 (pH meter); Diffuse change to -
C	1.67 - 1.98 m	; Medium clay; Moderately plastic; Field pH 7.5 (pH meter);

Morphological Notes

Observation Notes

SUBSTRATE MATERIAL - SILICA

Site Notes

BAROSSA LIGHT

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m	Cmol (+)/kg							%
0 - 0.11	7.4A	0.088C								
0.11 - 0.22	8.2A	0.097C	5.3F	6.4	0.88	3.1	1.3E			
0.22 - 0.38	8.9A	0.2C								
0.38 - 0.51	9.4A	0.26C								
0.51 - 0.66	9.6A	0.26C								
0.66 - 0.79	9.6A	0.26C								
1.67 - 1.98	9A	0.26C								

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 - 0.11								1	22C	55	8	13
0.11 - 0.22	0.01A								19C	35	6	37
0.22 - 0.38	0.04A								14C	28	9	47
0.38 - 0.51	4.8A								10C	25	14	45
0.51 - 0.66	4.4A								6C	23	17	49
0.66 - 0.79	1.3A								5C	25	21	45
1.67 - 1.98	0.02A								2C	42	20	36

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 - 0.11									
0.11 - 0.22									
0.22 - 0.38									
0.38 - 0.51									
0.51 - 0.66									
0.66 - 0.79									
1.67 - 1.98									

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Laboratory Analyses Completed for this profile

15D1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_K	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_MG	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_NA	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15G1_H	Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0
19A1	Carbonates - rapid titration
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3A_TSS	Electrical conductivity or soluble salts - Total soluble salts %
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
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