Project Name: Soils of the MonartoTown Site

Observation ID: 1 **Project Code:** Monarto Site ID: A1149

Agency Name: **CSIRO Division of Soils (SA)**

Site Information

Desc. Bv: Malcolm J. Wright Locality:

Date Desc.: Elevation: 27/11/75 No Data Map Ref.: 1:50000 Rainfall: No Data Northing/Long.: 6111690 AMG zone: 54 Runoff: No Data Easting/Lat.: 336110 Datum: AGD66 Drainage: No Data

Geology

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

Land Form

Rel/Slope Class: No Data Pattern Type: No Data Morph. Type: No Data Relief: No Data Elem. Type: Slope Category: No Data No Data Aspect: No Data Slope:

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification: N/A Mapping Unit: Principal Profile Form: Db1.13 ASC Confidence: **Great Soil Group:** N/A

Confidence level not specified

Site <u>Disturbance:</u>

Vegetation:

B2k

Surface Coarse Fragments:

Profile Morphology

0 - 0.07 m Dark greyish brown (10YR4/2-Moist); ; Loamy sand; Massive grade of structure; Firm consistence; Field pH 6.5 (Raupach); Clear change to -

A/B Brown (7.5YR4/4-Moist); ; Heavy clay; 5-10 mm, Angular blocky; Strong grade of structure, 10-0.07 - 0.14 m 20 mm, Prismatic; Dry; Very firm consistence; Field pH 7.5 (Raupach); Sharp change to

Brown (7.5YR4/4-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Angular blocky; 0.14 - 0.24 m Strong grade of structure, 10-20 mm, Prismatic; Dry; Very firm consistence; 2-10%, fine

gravelly, 2-6mm, Quartz, coarse fragments; Common (10 - 20 %), Calcareous, , Soft

segregations; Field pH 9 (Raupach); Clear change to

Yellowish brown (10YR5/4-Moist); ; Clay loam; Strong grade of structure, 5-10 mm, Angular B2k 0.24 - 0.34 m

blocky; Strong grade of structure, 10-20 mm, Prismatic; Dry; Very firm consistence; 2-10%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Many (20 - 50 %), Calcareous, , Soft

segregations; Field pH 9 (Raupach);

Brownish yellow (10YR6/6-Moist); ; Clay loam; Massive grade of structure; Weak grade of B2k 0.34 - 0.44 m

structure, Angular blocky; Dry; Very firm consistence; Many (20 - 50 %), Calcareous, , Soft

segregations; Field pH 9 (Raupach);

Reddish yellow (7.5YR6/6-Moist); ; Loam; Massive grade of structure; Dry; Very firm Ck 0.44 - 0.65 m

consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Field pH 9 (Raupach);

Ck 0.65 - 0.85 m Pale yellow (2.5Y7/4-Moist);; Sandy clay loam; Massive grade of structure; Dry; Very firm

consistence; Many (20 - 50 %), Calcareous, , Soft segregations; Diffuse change to -

R 0.85 - 1 m Rock 1 - 1.4 m Rock

Morphological Notes

Sets very hard.

A/B Much organic staining on ped. faces and sand in cracks. An A/B horizon.

B2k Organic matter staining.

Organic matter staining, micaceous. B2k

R Mainly weathering gneiss with carbonate matrix. R In situ gneissic schist. Highly micaceous.

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Observation Notes

Site Notes

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Site ID: A1149 Observation ID: 1 Monarto

CSIRO Division of Soils (SA)

Laboratory Test Results:

Depth	Hq	1:5 EC	Excl	hangeable	e Cations		Exchangeabl	e CEC		ECEC		ESP	
	•	dC/		Mg	K	Na Cmal (Acidity					%	
m		dS/m				Cmol (+)/Kg					%	
0 - 0.07	8.1A	0.13A	3.8K	1	0.54	0.09							
0.07 - 0.14				_									
0.14 - 0.24	8.8A	0.17A	22.6K	8	1.7	1.3							
0.24 - 0.34 0.34 - 0.44													
0.34 - 0.44	9.6A	0.3A	8.2K	7.4	0.83	2.4							
0.65 - 0.85	3.07	0.5/4	0.21	7.7	0.00	2.7							
0.85 - 1													
1 - 1.4													
Depth	CaCO3	Organic	Avail.	Total	Total	Tota	al Bulk	Pa	rticle	Size	Analysi	s	
•		Č	Р	Р	N	K	Density	y GV	CS	FS		Clay	
m	%	%	mg/kg	%	%	%	Mg/m3			%			
0 - 0.07	0.17C								21	46	2	6	
0.07 - 0.14	0.170								-1	-10	_	Ü	
0.14 - 0.24	14C								21	13	2	42	
0.24 - 0.34													
0.34 - 0.44											_		
0.44 - 0.65	38C								21	10	2	28	
0.65 - 0.85 0.85 - 1													
1 - 1.4													
1 - 1.4													
Depth	COLE		Gravimetric/Volumetric Water Contents K sat K unsat									ıt	
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		_	_		
m				g/	/g - m3/m	3			mm	/h	mm/h	mm/h	

0 - 0.07

0 - 0.07 0.07 - 0.14 0.14 - 0.24 0.24 - 0.34 0.34 - 0.44 0.44 - 0.65 0.65 - 0.85 0.85 - 1 1 - 1.4

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Laboratory Analyses Completed for this profile

Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded Exch. basic cations (K++) - meq per 100g of soil - Not recorded 15_NR_CA 15_NR_K Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded 15_NR_MG Exch. basic cations (Na++) - meq per 100g of soil - Not recorded Calcium Carbonate (CaCO3) - Not recorded 15 NR NA

19B_NR

2_LOI Loss on Ignition (%) 2A1 Air-dry moisture content 3A1 EC of 1:5 soil/water extract 4A1 pH of 1:5 soil/water suspension

5_NR Water soluble Chloride - Cl(%) - Not recordede

P10_NR_C Clay (%) - Not recorded P10_NR_FS P10_NR_S Fine sand (%) - Not recorded Sand (%) - Not recorded P10_NR_Z Silt (%) - Not recorded