Project Name: Rhynie Soil Survey

Project Code: Rhynie Site ID: A1276 Observation ID: 1

Agency Name: CSIRO Division of Soils (SA)

Site Information

Desc. By: N.J. McKenzie Locality:

Date Desc.: Elevation: 01/11/88 No Data Sheet No.: 6629-18 1:10000 Map Ref.: Rainfall: No Data Northing/Long.: 6216540 AMG zone: 54 Runoff: No Data Easting/Lat.: 290250 Datum: AGD66 Drainage: No Data

<u>Geology</u>

ExposureType: Undisturbed soil core Conf. Sub. is Parent. Mat.: No Data Substrate Material: No Data

Land Form

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:No DataRelief:No DataElem. Type:No DataSlope Category:No DataSlope:%Aspect:No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/AN/APrincipal Profile Form:N/AASC Confidence:Great Soil Group:N/A

Confidence level not specified

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1 0 - 0.1 m Dark reddish brown (5YR3/4-Moist); ; Clay loam, fine sandy; Weak grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Dry; Strong consistence; Field pH 6 (Raupach); Sharp change to -

change it

B21 0.1 - 0.2 m Dark red (2.5YR3/6-Moist); ; Medium heavy clay; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Dry; Very strong consistence; Common cutans, 10-50% of ped

faces or walls coated, distinct; Field pH 7 (Raupach); Clear change to -

B22 0.2 - 0.3 m Red (2.5YR4/6-Moist); ; Heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Roughped fabric; Dry; Very strong consistence; Few cutans, <10% of ped faces or walls coated, faint;

Field pH 8 (Raupach);

B22 0.3 - 0.4 m Red (2.5YR4/6-Moist); ; Heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Rough-

ped fabric; Dry; Very strong consistence; Few cutans, <10% of ped faces or walls coated, faint;

Field pH 8 (Raupach); Clear change to -

B31 0.4 - 0.5 m Red (2.5YR5/6-Moist); , 2.5YR54, 20-50% , 30-mm, Faint; Heavy clay; Weak grade of structure,

10-20 mm, Angular blocky; Rough-ped fabric; Dry; Very strong consistence; Few cutans, <10% of ped faces or walls coated, faint; Common (10 - 20 %), Calcareous, Fine (0 - 2 mm), Soft

segregations; Field pH 8.5 (Raupach);

B32 0.5 - 0.7 m Reddish yellow (5YR6/6-Moist); ; Heavy clay; Weak grade of structure, 10-20 mm, Angular

blocky; Rough-ped fabric; Dry, Very strong consistence; 20-50%, coarse gravelly, 20-60mm, angular platy, undisturbed, Shale, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Common (10 - 20 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Field pH 8.5

(Raupach); Gradual change to -

BC 0.7 - 1.3 m Reddish yellow (5YR6/6-Moist); ; Heavy clay; Massive grade of structure; Rough-ped fabric; Many

(20 - 50 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Field pH 8.5 (Raupach); Gradual

change to -

1.3 - m ; Massive grade of structure;

Morphological Notes

A1 Shallow, tough and degraded A1 (eroded?). No high carbonate layer.

B22 Massive very pedal B22 - sodic and high boron? Very low sorptivity and no swelling in

the tough and shiny B2.

BC WFS is pale at depth (not the gun-barrel grey of other locations).

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Observation Notes

Site Notes

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Laboratory Test Results:

Depth Depth	pH	1:5 EC	Exc	changeable	Cations	Ex	xchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/	Acidity kg			%
0 - 0.1	7.16C	0.25A								
0.1 - 0.2	7.36A 7.03C 7.49A	0.19A								
0.2 - 0.3	7.9C 8.5A	0.32A								
0.3 - 0.4										
0.4 - 0.5	8.19C 9.04A	0.47A								
0.5 - 0.7	8.49C 9.18A	0.84A								
0.7 - 1.3										
1.3 -										
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV CS	Size FS	Analysis Silt Clay
m	%	%	mg/kg		%	%	Mg/m3		%	J J.u.,
0 - 0.1 0.1 - 0.2										
0.2 - 0.3										
0.3 - 0.4										
0.4 - 0.5										
0.4 - 0.3										
0.3 - 0.7										
1.3 -										
Depth	COLE								K unsat	
m		Sat.	0.05 Bar	0.1 Bar g/g	0.5 Bar g - m3/m3	1 Bar	5 Bar 15 E		n/h	mm/h
0 0 1										
0 - 0.1										
0.1 - 0.2										
0.2 - 0.3										
0.3 - 0.4										
0.4 - 0.5										
0.5 - 0.7										
0.7 - 1.3										
1.3 -										

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Laboratory Analyses Completed for this profile

12C2 Calcium chloride extractable boron - ICPAES

3A1 EC of 1:5 soil/water extract 4A1 pH of 1:5 soil/water suspension

4B2 pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1

5A2 Chloride - 1:5 soil/water extract, automated colour