

**Project Name:** Rhynie Soil Survey  
**Project Code:** Rhynie **Site ID:** A1259 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (SA)

#### Site Information

<b>Desc. By:</b>	N.J. McKenzie	<b>Locality:</b>	
<b>Date Desc.:</b>	01/11/88	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>	Sheet No. : 6629-18 1:10000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6216820 AMG zone: 54	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	289370 Datum: AGD66	<b>Drainage:</b>	No Data

#### Geology

<b>ExposureType:</b>	Undisturbed soil core	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	No Data

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	No Data	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	No Data	<b>Slope Category:</b>	No Data
<b>Slope:</b>	%	<b>Aspect:</b>	No Data

#### Surface Soil Condition (dry):

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
N/A		<b>Principal Profile Form:</b>	N/A
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	N/A
Confidence level not specified			

#### Site Disturbance:

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

A1	0 - 0.1 m	Dark reddish brown (5YR3/3-Moist); ; Sandy clay loam, fine sandy; 10-20 mm, Subangular blocky; Rough-ped fabric; Dry; Very firm consistence; Field pH 6 (Raupach); Abrupt change to -
B21	0.1 - 0.2 m	Reddish brown (5YR4/4-Moist); ; 5YR46, 20-50% , 15-30mm, Faint; , 5YR56, 20-50% , 15-30mm, Faint; Medium heavy clay; 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 7.5 (Raupach); Clear change to -
B22	0.2 - 0.3 m	Reddish brown (5YR4/4-Moist); ; Medium heavy clay; 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Many (20 - 50 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; Field pH 9 (Raupach);
B22	0.3 - 0.4 m	Reddish brown (5YR4/4-Moist); ; Medium heavy clay; 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Many (20 - 50 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations; Field pH 9 (Raupach);
B22	0.4 - 0.45 m	Reddish brown (5YR4/4-Moist); ; Medium heavy clay; 20-50 mm, Polyhedral; Rough-ped fabric; Dry; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Many (20 - 50 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations; Field pH 9 (Raupach); Clear change to -
B31	0.45 - 0.5 m	Reddish yellow (5YR6/6-Moist); ; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Strong consistence; Few cutans, <10% of ped faces or walls coated, faint; Many (20 - 50 %), Calcareous, Extremely coarse (> 60 mm), Soft segregations; Field pH 9 (Raupach);
B31	0.5 - 0.6 m	Reddish yellow (5YR6/6-Moist); ; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Strong consistence; Few cutans, <10% of ped faces or walls coated, faint; Many (20 - 50 %), Calcareous, Extremely coarse (> 60 mm), Soft segregations; Field pH 9 (Raupach); Clear change to -
B32	0.6 - 0.7 m	Reddish yellow (5YR6/6-Moist); , 20-50% , 30-mm, Distinct; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Strong consistence; Few cutans, <10% of ped faces or walls coated, faint; Many (20 - 50 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 9 (Raupach);

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B32	0.7 - 0.75 m	Reddish yellow (5YR6/6-Moist); , 20-50% , 30-mm, Distinct; Medium heavy clay; Massive grade of structure; Rough-ped fabric; Dry; Strong consistence; Few cutans, <10% of ped faces or walls coated, faint; Many (20 - 50 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; Field pH 9 (Raupach); Abrupt change to -
C	0.75 - 1.3 m	; Common (10 - 20 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations; Field pH 8.5 (Raupach);

**Morphological Notes**

A1	The A1 is thin and tough.
B21	The B21 mottle is 5yr46 in the ped and 5yr56 - carbonate. The B2 does not sorb water readily and is difficult to manipulate - very low sorptivity despite an apparently high clay content.
B22	A reasonably shallow carbonate rich profile.
B31	The B3 is banded with carbonate (80%?).
B32	The B32 mottle is dark brown manganese and clay coatings. The B32 colour is more differentiated than the massive carbonate rich B31.
C	The C is banded with carbonate absent in the greyer layers. Soft C to 130cm.

**Observation Notes**

**Site Notes**

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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 - 0.1  
0.1 - 0.2  
0.2 - 0.3  
0.3 - 0.4  
0.4 - 0.45  
0.45 - 0.5  
0.5 - 0.6  
0.6 - 0.7  
0.7 - 0.75  
0.75 - 1.3

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
		C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		

0 - 0.1  
0.1 - 0.2  
0.2 - 0.3  
0.3 - 0.4  
0.4 - 0.45  
0.45 - 0.5  
0.5 - 0.6  
0.6 - 0.7  
0.7 - 0.75  
0.75 - 1.3

[illegible]

0 - 0.1  
0.1 - 0.2  
0.2 - 0.3  
0.3 - 0.4  
0.4 - 0.45  
0.45 - 0.5  
0.5 - 0.6  
0.6 - 0.7  
0.7 - 0.75  
0.75 - 1.3

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Laboratory Analyses Completed for this profile