

**Project Name:** MER  
**Project Code:** MER **Site ID:** P294 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (WA)

**Site Information**

<b>Desc. By:</b>	E. Bettenay	<b>Locality:</b>	On Old York Road at 743KM peg on south boundary
<b>Date Desc.:</b>	22/09/56	<b>Elevation:</b>	288 metres
<b>Map Ref.:</b>	Sheet No. : 2535 1:100000	<b>Rainfall:</b>	300
<b>Northing/Long.:</b>	118.168055555556	<b>Runoff:</b>	Rapid
<b>Easting/Lat.:</b>	-31.499166666667	<b>Drainage:</b>	Well drained

**Geology**

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	Unconsolidated material (unidentified)

**Land Form**

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	Sand plain
<b>Morph. Type:</b>	Lower-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	Gently inclined
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Class Undetermined Pedal Lithocalcic Calcarosol		<b>Principal Profile Form:</b>	N/A
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Solonized brown soil
Analytical data are incomplete but reasonable confidence.			

**Site Disturbance:** No effective disturbance. Natural

**Vegetation:**

**Surface Coarse Fragments:**

**Profile Morphology**

A1	0 - 0.06 m	Greyish brown (10YR5/2-Moist); ; Loamy sand; Single grain grade of structure; Loose consistence; 20-50%, Quartz, coarse fragments; Soil matrix is Slightly calcareous; Clear, Smooth change to -
A2	0.06 - 0.23 m	Yellowish red (5YR5/6-Moist); ; Sandy medium clay; 20-50 mm, Angular blocky; Very firm consistence; 2-10%, fine gravelly, 2-6mm, Quartz, coarse fragments; Soil matrix is Highly calcareous; Diffuse, Smooth change to -
AB	0.23 - 0.3 m	Yellowish red (5YR5/6-Moist); ; Sandy medium clay; Massive grade of structure; 2-10%, fine gravelly, 2-6mm, Quartz, coarse fragments; Few (2 - 10 %), Calcareous, , Soft segregations; Diffuse, Smooth change to -
B	0.36 - 0.76 m	Light brown (7.5YR6/4-Moist); ; Sandy medium clay; , Columnar; Very firm consistence; 2-10%, fine gravelly, 2-6mm, Quartz, coarse fragments; Many (20 - 50 %), Calcareous, , Soft segregations; Diffuse, Smooth change to -
BC	0.76 - 1.37 m	Light brown (7.5YR6/4-Moist); ; Sandy medium clay; , Granular; Very firm consistence; 2-10%, fine gravelly, 2-6mm, Quartz, coarse fragments; Very many (50 - 100 %), Calcareous, Extremely coarse (> 60 mm), Nodules;
C	1.37 - 1.73 m	Reddish brown (2.5YR4/4-Moist); ; Sandy medium clay; Very strong consistence; 2-10%, fine gravelly, 2-6mm, Quartz, coarse fragments; Very few (0 - 2 %), Calcareous, , Soft segregations; Field pH 8.5 (pH meter);

**Morphological Notes**

**Observation Notes**

76-137CM 20-50% OF SOFT CARBONATES ALSO:

**Site Notes**

NARROGIN LA.

**Observation ID: 1**

**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 - 0.06	8.4A	0.104A								
0.06 - 0.23	9.2A	0.185A								
0.23 - 0.3	9.6A	0.357A								
0.36 - 0.76	9.8A	0.417A								
0.76 - 1.37	9.7A	0.506A								

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.06	0.61A	0.96D		0.006D	0.066B			10	20D	59	4	12
0.06 - 0.23	7A				0.05B			1	20D	33	14	22
0.23 - 0.3	11A							3	22D	24	15	24
0.36 - 0.76	20A			0.007D	0.021B			6	17D	22	11	28
0.76 - 1.37	26A			0.005D	0.012B			54	12D	18	4	36

[illegible]

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**Laboratory Analyses Completed for this profile**

19A1	Carbonates - rapid titration
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
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7_NR	Total nitrogen (%) - Not recorded
9A_HCL	Total element - P(%) - By boiling HCl
P10_GRAV	Gravel (%)
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance