

**Project Name:** Moora Wongan Hills land resources survey  
**Project Code:** MRA **Site ID:** 1185 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Mir Frahmmand	<b>Locality:</b>	
<b>Date Desc.:</b>	18/03/97	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6560800 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	448300 Datum: AGD84	<b>Drainage:</b>	No Data

#### 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>	No Data

#### Landform

**Rel/Slope Class:** Gently undulating rises 9-30m 1-3% **Pattern Type:** Rises

<b>Morph. Type:</b>	No Data	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	2 %	<b>Aspect:</b>	No Data

#### Surface Soil Condition

#### Erosion

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Acidic-Mottled Mesotrophic Yellow Kandosol		<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	Grey (10YR5/1-Moist); ; Clayey sand; Massive grade of structure; Field pH 4.5 (pH meter); Clear
		change to -
B1	0.1 - 0.3 m	Pale brown (10YR6/3-Moist); ; Clayey coarse sand; Massive grade of structure; Field pH 4.8 (pH meter);
		Diffuse change to -
B12	0.3 - 0.5 m	Very pale brown (10YR7/3-Moist); ; Clayey coarse sand; Massive grade of structure; Field pH 4.9 (pH meter); Clear
		change to -
B2c	0.5 - 0.7 m	Very pale brown (10YR8/3-Moist); , 7.5YR56, 10-20% , Distinct; Sandy loam; Weak grade of structure,
		Angular blocky; 2-10%, subrounded, Quartz, coarse fragments; 50-90%, subrounded, Ironstone, coarse
		fragments; Field pH 5.7 (pH meter); Diffuse change to -
B21t	0.7 - 1.1 m	Very pale brown (10YR8/3-Moist); , 7.5YR46, 10-20% , Distinct; Sandy clay loam; Weak grade of
		structure, Angular blocky; Field pH 6.1 (pH meter); Diffuse change to -
B22t	1.1 - 1.6 m	Reddish yellow (5YR6/6-Moist); , 2.5YR36, 20-50% ; Light clay; Weak grade of structure, Angular blocky;
		Field pH 5.7 (pH meter); Diffuse change to -
B3t	1.6 - 2 m	Light grey (10YR7/2-Moist); , 2.5YR36, 20-50% , Distinct; Heavy clay; Massive grade of structure; Field
		pH 4.8 (pH meter);

#### Morphological Notes

A1	f-m sand
B1	m-k sand
B3t	gritty

#### Observation Notes

#### Site Notes

Grey deep sandy duplex Acid yellow sandy earth

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**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 - 0.1	4.2B 4.9H	4B	0.41H	0.07	<0.02	0.03	0.19J		0.52D	
0.1 - 0.3	4.3B 4.9H	1B	0.08H	<0.02	<0.02	<0.02	0.12J		0.11D	
0.3 - 0.5	4.4B 5H	1B	0.05H	<0.02	<0.02	<0.02	0.12J		0.08D	
0.5 - 0.6	4.2B 5H	2B	0.51H	0.12	<0.02	<0.02	0.16J		0.65D	
0.6 - 0.7	5.4B 6H	2B	1.05H	0.27	0.02	0.03			1.37D	
0.7 - 1.1	5.8B 6.3H	3B	1.14H	0.97	<0.02	0.04			2.16D	
1.1 - 1.6	4.5B 5.1H	3B	0.2H	1.19	<0.02	0.05	0.09J		1.45D	
1.6 - 2	6B 6.6H	43B	0.64A	3.75	<0.02	1.68			6.08D	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	Clay %	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.1		0.46D		83B	0.034E			1.5
1.5								
0.1 - 0.3		0.1D						1.6
1.3								
0.3 - 0.5		0.06D						1.2
1.5								
0.5 - 0.6		0.09D						1.3
14.9								
0.6 - 0.7		0.09D						0.9
17.6								
0.7 - 1.1		0.09D						2.2
22.9								
1.1 - 1.6		0.07D						5.3
33.2								
1.6 - 2		0.04D						10.5
61.4								

**Laboratory Analyses Completed for this profile**

15_NR_AL	Aluminium Cation - meq per 100g of soil - Not recorded
15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMRR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_MN	Exchangeable bases (Mn++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
15A1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_CEC	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_MG	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_NA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble

salts

15E1\_K

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts

15E1\_MG

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts

15E1\_NA

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts

15J\_BASES

Sum of Bases

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15L1_a	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
Sum of Cations	and measured clay
15N1_a	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
18A1_NR	Bicarbonate-extractable potassium (not recorded)
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B_AL_NR	Aluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
9B_NR	Bicarbonate-extractable phosphorus (not recorded)
9H1	Anion storage capacity
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)
P10_20_75	20 to 75u particle size analysis, (method not recorded)
P10_75_106	75 to 106u particle size analysis, (method not recorded)
P10_NR_C	Clay (%) - Not recorded
P10_NR_Saa	Sand (%) - Not recorded arithmetic difference, auto generated
P10_NR_Z	Silt (%) - Not recorded
P10106_150	106 to 150u particle size analysis, (method not recorded)
P10150_180	150 to 180u particle size analysis, (method not recorded)
P10180_300	180 to 300u particle size analysis, (method not recorded)
P10300_600	300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)