

**Project Name:** Moora Wongan Hills land resources survey  
**Project Code:** MRA **Site ID:** 0009 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b> Mir Frahmmand	<b>Locality:</b>
<b>Date Desc.:</b> 03/03/95	<b>Elevation:</b> No Data
<b>Map Ref.:</b>	<b>Rainfall:</b> No Data
<b>Northing/Long.:</b> 6590000 AMG zone: 50	<b>Runoff:</b> No Data
<b>Easting/Lat.:</b> 435100 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

<b>Rel/Slope Class:</b> No Data	<b>Pattern Type:</b> No Data
<b>Morph. Type:</b> Upper-slope	<b>Relief:</b> No Data
<b>Elem. Type:</b> Hillslope	<b>Slope Category:</b> No Data
<b>Slope:</b> 3 %	<b>Aspect:</b> 225 degrees

#### Surface Soil Condition Soft

#### Erosion

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b> N/A
Mottled-Sodic 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	Dark yellowish brown (10YR4/4-Moist); ; Fine sandy loam; <2 mm; ; Dry; 10-20%, rounded, Ironstone,
	coarse fragments; Field pH 5.8 (pH meter); Clear change to -
B11c 0.1 - 0.35 m	Yellowish brown (10YR5/6-Moist); ; Massive grade of structure; Dry; 50-90%, coarse
gravelly, 20-60mm,	subangular, Ironstone, coarse fragments; 20-50%, subrounded, Ironstone, coarse
fragments; Field pH	6.2 (pH meter); Diffuse change to -
B12c 0.35 - 0.7 m	Yellowish brown (10YR5/6-Moist); ; Massive grade of structure; Dry; 50-90%, coarse
gravelly, 20-60mm,	subangular, Ironstone, coarse fragments; 20-50%, subrounded, Ironstone, coarse
fragments; Field pH 6	(pH meter); Abrupt change to -
B2t 0.7 - 1 m	, 2.5YR48; Light clay; Moderate grade of structure; Smooth-ped fabric; Dry; Field pH 6.3
(pH meter);	Diffuse change to -
Btc 1 - 1.5 m	Dark red (2.5YR3/6-Moist); , 10YR76; Medium clay; Rough-ped fabric; Dry; Field pH 7.6
(pH meter);	

#### Morphological Notes

B11c	Fine +
Btc	Mottled clay - Duplex.

#### Observation Notes

#### Site Notes

Roll PIA, 5 & 5a, 5th Horizon - not easy to dig soil. Latarite out crop east of pit, about 50m away.

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#### Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations	Exchangeable	CEC	ECEC	ESP
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m	dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity	%
0 - 0.1	4.8B 5.6H	9B	3.04H	0.96	0.43	0.09	4.52D
0.1 - 0.35	5.4B 6.3H	5B	3.03H	1.56	0.05	0.25	4.89D
0.35 - 0.7	5.9B 6.6H	7B	2.35A	3.16	0.05	0.39	5.95D
0.7 - 1	6.3B 7.1H	12B	1.08A	3.84	0.04	0.88	5.84D
1 - 1.5	6.9B 7.2H	78B	0.75A	3.76	0.03	1.52	6.06D

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV CS	Size FS %	Analysis Silt
0 - 0.1 11.8		2.13D		240B	0.14E					7.2
0.1 - 0.35 31.1		0.48D		60B	0.03E					6.4
0.35 - 0.7 35.5		0.34D		54B	0.022E					5.7
0.7 - 1 37.5		0.17D		35B	0.011E					6.7
1 - 1.5 49.5		0.06D		20B	0.004E					12.7

#### Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMJR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15A1_CA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_CEC	salts
15A1_K for soluble	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_NA for soluble	salts
15E1_AL	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15E1_CA salts	salts
15E1_K	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_MN	salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15J_BASES	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15L1_a	Sum of Bases
Sum of Cations	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using
15N1_a	and measured clay
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
3_NR	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
4_NR	Electrical conductivity or soluble salts - Not recorded
4B_AL_NR	pH of soil - Not recorded
4B1	Aluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded
6A1_UC	pH of 1:5 soil/0.01M calcium chloride extract - direct
7A1	Organic carbon (%) - Uncorrected Walkley and Black method
9A3	Total nitrogen - semimicro Kjeldahl, steam distillation
9H1	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
	Anion storage capacity

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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)