

Project description	
Project name:	North West Queensland Reconnaissance Study
Project status:	Data is from an active project and may be subject to change through additions/updates or further quality assessment processes
Location:	North West Queensland

Site characteristics			
Date described:	7/05/2008	Observation type:	Relatively undisturbed soil core
Site Type:	Free survey site	Observation class:	Class IIb (core analytical suite)
Slope (%):	0.5	Morphological type:	Flat
Slope type	Estimate	Landform element:	Plain
Geology:	Allaru Member: Claystone, siltstone, silty limestone	Landform pattern:	Plain
Soil Name:	Not recorded	Substrate lithology:	Siltstone
Runoff:	Not recorded	Depth to free water:	Not recorded
Permeability:	Not recorded	Erosion:	No type recorded - old data only
Drainage:	Not recorded	Microrelief type:	Zero or none
Disturbance:	No effective disturbance	Proportion gilgai:	N/A
Rock outcrop:	Not recorded	Vertical interval (m):	N/A
Surface condition:	Self-mulching; Periodic cracking	Horizontal interval (m):	N/A
Surface coarse fragments:	Very few (<2%), subrounded, silcrete, medium pebbles (6-20 mm)	Microrelief component sampled:	N/A

Site location							
Datum	Latitude (dd)	Longitude (dd)	Zone	Easting (m)	Northing (m)	Location accuracy (m)	Location measurement method
GDA 94	-20.63010	141.36352	54	537873	7718746	Not recorded	Averaging GPS
GDA 2020	-20.63010	141.36353	54	537874	7718748		

Soil classification					
Australian Soil Classification (ASC)	Confidence	ASC Technical Reference	Buried	GSG	PPF
Epihypersodic, Self-mulching, Grey Vertosol; non-gravelly, fine, very fine, moderate.		Isbell (2002) The Australian Soil Classification Revised Edition	N/A	Grey clay	Ug5.22

Vegetation		
Community name	Grassland with emergent shrubs	
Stratum	Species	Common name
Mid 1.01-3.0 m	<i>Atalaya hemiglauca</i>	whitewood
	<i>Capparis lasiantha</i>	nipan, splitjack
	<i>Ehretia saligna</i>	
Lowest 0.26-0.5 m	<i>Cenchrus ciliaris</i>	buffel grass
	<i>Astrebla lappacea</i>	curly mitchell grass
	<i>Salsola kali</i>	soft roly-poly

Profile morphology											
No	Name	Upper depth (m)	Lower depth (m)	Colour	Mottles	Textures	Structures	Coarse fragments	Segregations	Strengths	Bounds
1	A1	0	0.1	Dark greyish brown (10YR 4/2) moist		Light medium clay	Strong <2 mm Granular structure;	very few (<2%) subrounded silcrete medium pebbles (6-20 mm);	No segregations;		clear
2	B21	0.1	0.3	Dark greyish brown (10YR 4/2) moist		Medium heavy clay	Weak 2-5 mm Subangular blocky structure;	very few (<2%) subrounded silcrete small pebbles (2-6 mm);	Very few (<2%) Fine (<2mm) Calcareous Soft segregations;		clear
3	B22	0.3	0.6	Dark greyish brown (10YR 4/2) moist		Heavy clay	Moderate 5-10 mm Lenticular structure;	very few (<2%) subrounded silcrete small pebbles (2-6 mm);	Very few (<2%) Fine (<2mm) Calcareous Soft segregations;		diffuse
4	B23	0.6	0.8	Dark greyish brown (10YR 4/2) moist		Heavy clay	Strong 2-5 mm Lenticular structure;		Very few (<2%) Fine (<2mm) Calcareous Soft segregations;		clear

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Soil and Land Information

Site Listing Report

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5	B3	0.8	0.85	Dark greyish brown (10YR 4/2) moist		Heavy clay	Moderate 2-5 mm Subangular blocky structure;	few (2-10%) angular siltstone small pebbles (2-6 mm);	Very few (<2%) Fine (<2mm) Calcareous Soft segregations;		
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Notes			
Note level	Horizon name	Horizon no	Note
Site			Allaru Member of Wilgunya Formation.

Laboratory test results							
				Sample	1	2	3
				Upper depth (m)	0	0	0.2
				Lower depth (m)	0.1	0.1	0.3
Group	Method	Code	Units	Bulked Sample	Y	N	N
Profile General	pH - 1:5 water	4A1			8.6	8.6	9.2
	pH - 1:5 0.01M CaCl2	4B1			7.7	7.6	7.8
	EC - 1:5 water	3A1	dS/m		0.08	0.08	0.11
	Cl - 1:5 water - automated	5A2	mg/kg		<20	<20	<20
	Water sol NO3 - automated	7B1	mg/kg		4	3	2
	OC - Dumas, infrared (pre-treatment)	6B3a	%		0.5	0.6	0.4
	Coarse sand (0.2-2.0 mm)	2Z2_CS	%			7	7
	Fine sand (0.02-0.2 mm)	2Z2_FS	%			28	28
	Silt (2-20 um)	2Z2_Silt	%			12	10
	Clay (<2 um)	2Z2_Clay	%			57	60
	PSA sum	2Z2_sum	%			104	105
	Moisture content - air-dry	2A1	%			6.8	8.2
	Moisture content - 15 bar	2E1	%			16.8	18.4
	Dispersion ratio R1 (silt+clay)	2Z1_R1				0.39	0.42
	Total S XRF	10A1	%			0.02	0.01
	Total P XRF	9A1	%			0.03	0.03
	Total K XRF	17A1	%			0.930	0.900
	Bulk Density (small core)	503.01a	g/cm3			0.862	1.158
Alcoholic Cations	Exch Ca - alcohol. NH4Cl, pH8.5, prewash	15C1_Ca	cmol_c/kg			40.30	40.60
	Exch Mg - alcohol. NH4Cl, pH8.5, prewash	15C1_Mg	cmol_c/kg			3.18	3.15
	Exch Na- alcohol. NH4Cl, pH8.5, prewash	15C1_Na	cmol_c/kg			0.26	1.00
	Exch K - alcohol. NH4Cl, pH8.5, prewash	15C1_K	cmol_c/kg			1.45	0.88
	CEC - alcohol. NH4Cl, pH8.5, prewash	15C1_CEC	cmol_c/kg			42	43
Other Cations	ESP (Exch. Na %)	15N1	%			0.6	2.3
Other Bulk	DTPA Extr Cu	12A1_Cu	mg/kg		0.6		
	DTPA Extr Fe	12A1_Fe	mg/kg		9.7		
	DTPA Extr Mn	12A1_Mn	mg/kg		9.7		
	DTPA Extr Zn	12A1_Zn	mg/kg		0.2		
	Extr K - HCl	18B1	cmol_c/kg		1.2		
	P-acid extr. - automated	9G2	mg/kg		93		
	P-bicarb extr. (Colwell P) - automated	9B2	mg/kg		13		
	CaPhos Extr S - ICPAES	10B3	mg/kg		1		
Other Analyses Completed	CaCl2 Extr B - ICPAES	12C2	mg/kg		0.4		

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Photo No: 16
Date: 7/05/2008
Title: NWREC Site 4 - Landscape
Desc:



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