Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
7	641005 mE 7512573 mN	Crusting Grey (minor black) Vertosol	Detailed - 50mm hand auger	30/06/2018







Land use		NAT II - 6	Surface					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	e condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing Gently undulating plains, Open	Mount coolabah, semi-cleared	Nil microrelief Semi-cleared Nil erosion	Cracking 2- 6mm, crust Nil coarse fragments	A11 0.00-0.02 Abrupt	Light clay	Moderate, firm<10mm sub- angular	Nil inclusions and segregations	10YR3/1 Very dark grey Nil mottles/bleach	Moderately moist, moderate	Few fine	0.02 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
depression 2.0/1.0				A12 0.02-0.10 Abrupt	Light clay	Moderate, firm10- 30mm sub- angular	<1% calcium carbonate	10YR2/2 Very dark brown Nil mottles/bleach	Dry, moderate	Few fine	0.10 / 6.5	0.90-1.00	
				B21 0.10-0.70 Abrupt	Medium clay	Moderate, firm10- 30mm sub- angular	2% calcium carbonate nodules	10YR2/2 Very dark brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.30 / 7.0 0.60 / 7.5		
				B22 0.70-1.00 EOBH	Medium clay	Moderate, firm10- 30mm sub- angular	2% calcium carbonate nodules	10YR4/2 Dark greyish brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.90 / 7.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
7	641096mE 7512914mN	Crusting Grey (minor black) Vertosol	Detailed - 50mm hand auger	30/06/2018







Land use		Microrelief Disturbance Erosion	bance condition, ion surface rock					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation			Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing Very gently undulating plain 2.0/1.0	Various shrubs	Nil microrelief Nil to semi disturbance Nil erosion	Cracking 2- 6mm, crust Nil coarse fragments	A1 0.00-0.14 Abrupt	Light clay	Moderate, soft <10mm sub- angular	Nil inclusions and segregations	10YR3/1 Very dark grey Nil mottles/bleach	Moderate moist, moderate	Few fine	0.10 / 6.0		Nil additional observations
				B2 0.14-1.00 EOBH	Medium clay	Moderate, firm <10mm sub- angular	<2% black nodules	10YR4/2 Dark greyish brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.30 / 6.5 0.60 / 7.0 0.90 / 7.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
7	641074mE 7513152mN	Crusting Grey (minor black) Vertosol	Detailed - 50mm hand auger	30/06/2018





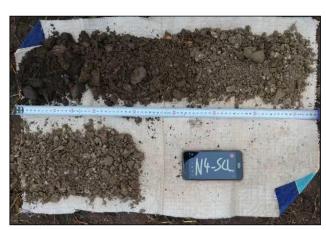


Land use		NA:	Surface					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	bance condition, ion surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing Very gently undulating plain 2.0/1.0	Various shrubs	Nil microrelief Nil disturbance Nil erosion	Crusting with cracking 2- 6mm, Nil coarse fragments	A1 0.00-0.16 Abrupt	Light clay	Moderate, soft <10mm sub- angular	Nil inclusions and segregations	10YR3/1 Very dark grey Nil mottles/bleach	Moderate moist, moderate	Few fine	0.10 / 6.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
			J	B2 0.16-1.00 EOBH	Medium clay	Moderate, firm <10mm sub- angular	<2% black nodules	10YR4/2 Dark greyish brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.30 / 6.5 0.60 / 7.0 0.90 / 7.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
5	641871mE 7513601mN	Black dermosol (with minor grey dermosol	Detailed - 50mm hand auger	1/07/2018
		variant)		







Land use								Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing Very gently undulating plain 2.0/1.0	Eucalyptus species	Nil microrelief Semi disturbed Nil erosion	Soft, <5% 2-6mm coarse fragments	A1 0.00-0.17 Abrupt B21 0.17-0.44 Abrupt	Sandy loam Light clay with minor sand	Weak, soft <10mm sub- rounded Moderate, firm <30mm sub-	Nil inclusions and segregations <2% pale red nodules	10YR3/2 Very dark greyish brown Nil mottles/bleach 10YR4/2 Dark greyish brown Nil mottles/bleach	Moderate moist, rapid Moderately moist, moderate	Very fine, very few	0.10 / 6.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
				B22 0.44-1.00 EOBH	Medium clay	angular Moderate, firm <30mm sub- angular	10-15% calcium carbonate nodules	10YR5/3 Brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.60 / 7.5 0.90 / 7.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
5	641792mE 7513825mN	Black dermosol (with minor grey dermosol	Detailed - 50mm hand auger	1/07/2018
		variant)		

Landscape Surface







Soil Profile

Land use					Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Grazing	Sparse shrub	Nil	Soft,	A1	Sandy	Weak, soft	Nil inclusions	10YR3/1	Moderate	Few fine	0.10 / 6.5	0.00-0.10	Nil additional	
Very gently	species	microrelief	Nil coarse	0.00-0.12	loam	<10mm sub-	and	Very dark grey	moist,			0.20-0.30	observations	
undulating		Nil	fragments	Abrupt		rounded	segregations	Nil mottles/bleach	rapid			0.50-0.60		
plain		disturbance		B21	Light clay	Moderate,	Nil inclusions	10YR2/1	Moderately	Very fine,	0.30 / 7.5	0.80-0.90		
midslope		Nil erosion		0.12-0.45	with	firm <30mm	and	Black	moist,	very few		0.90-1.00		
3.0/3.0				Abrupt	minor	sub-angular	segregations	Nil mottles/bleach	moderate					
					sand									
				B22	Medium	Moderate,	2% calcium	10YR2/1	Dry,	Very fine,	0.60 / 8.0			
				0.45-0.80	clay	firm <30mm	carbonate	Black	moderate	very few				
				Abrupt		sub-angular	nodules	Nil mottles/bleach						
				B23	Medium	Moderate,	2% calcium	10YR3/3	Dry,	Very fine,	0.90 / 8.0			
				0.80-1.00	clay	strong	carbonate	Dark brown	moderate	very few				
				EOBH		<30mm sub-	nodules	Nil mottles/bleach						
						angular								

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
1	643271mE 7514881mN	Black dermosol	Detailed - 50mm hand auger	1/07/2018







Land use			Surface					Soil Profile	Description						
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations		
Grazing Very gently undulating plain	Buffel grass	Nil microrelief Semi disturbed	Cracking, soft Nil coarse fragments	A1 0.00-0.17 Abrupt	Clay Loam	Moderate, firm<30mm sub- angular	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleach	Moderate moist, rapid	Few fine	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.77-0.87	Large root encountered at 0.60 mbgl		
midslope 3.0/3.0		Nil erosion		B21 0.17-0.89 Abrupt	Medium clay	Moderate, firm<50mm sub- angular	5% calcium carbonate nodules	10YR3/1 Very dark grey Very dark grey Nil mottles/bleach	Dry, moderate	Very fine, very few	0.30 / 7.0 0.60 / 8.0	0.90-1.00			
				B22 0.89-1.00 EOBH	Medium clay	Moderate, firm<50mm sub- angular	5% calcium carbonate nodules	10YR3/2 Very dark greyish brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.90 / 8.5				

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
1	643071mE 7514453mN	Black dermosol	Detailed - 50mm hand auger	1/07/2018







Land use			Surface		Soil Profile Description								
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing Very gently undulating plain	Buffel grass, nearby brigalow	Nil microrelief Nil disturbance	Firm, minor cracking, Nil coarse fragments	A1 0.00-0.15 Abrupt	Clay loam with minor sands	Moderate, firm<30mm sub- angular	Nil inclusions and segregations	10YR3/1 Very dark grey Black Nil mottles/bleach	Moderate moist, rapid	Few fine	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
midslope 2.0/2.0		Nil erosion		B21 0.15-0.50 Abrupt	Light clay with minor sands	Moderate, firm<50mm sub- angular	Nil inclusions and segregations	10YR3/1 Very dark grey Nil mottles/bleach	Dry, moderate	Very fine, very few	0.30 / 7.0	0.90-1.00	
				B22 0.50-0.70 Abrupt	Medium clay	Moderate, firm<50mm sub- angular	5% calcium carbonate nodules	10YR3/2 Very dark greyish brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.60 / 8.0		
				B23 0.70-1.00 EOBH	Medium clay	Moderate, firm<50mm sub- angular	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.90 / 8.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
1	642368mE 7513895mN	Black dermosol	Detailed - 50mm hand auger	1/07/2018







Land use			Surface		Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Grazing Very gently undulating plain	Buffel grass	Nil microrelief Extensively disturbed	Soft, cracking, <10% 10- 15mm coarse fragments	A11 0.00-0.17 Abrupt	Sandy clay loam	Moderate, soft, sub- rounded	Nil inclusions and segregations	10YR3/1 Very dark grey Black Nil mottles/bleach	Moderate moist, rapid	Few fine	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations	
midslope 2.0/2.0		Nil erosion		A12 0.17-0.37 Abrupt	Clay loam	Moderate, soft, sub- angular	Nil inclusions and segregations	10YR4/1 Dark grey Nil mottles/bleach	Dry, moderate	Very fine, very few	0.30 / 7.5	0.90-1.00		
				B21 0.37-0.70 Abrupt	Medium clay	Moderate, soft, sub- angular	<2% calcium carbonate nodules	10YR3/1 Very dark grey Nil mottles/bleach	Dry, moderate	Very fine, very few	0.60 / 7.0			
				B22 0.70-1.00 EOBH	Medium clay	Moderate, soft, sub- angular	Nil inclusions and segregations	10YR4/2 Dark greyish brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.90 / 7.0			

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
5	642032mE 7513619mN	Black dermosol (with minor grey dermosol	Detailed - 50mm hand auger	01/07/2018
		variant)		







Land use			Surface		Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Very gently undulating plain mid	Buffel grass, Brigalow, and belah on fence	Nil microrelief Nil disturbed	Soft, moist, nil coarse fragments	A11 0.00-0.09 Abrupt	Sandy loam	Weak, loose	Nil inclusions and segregations	10YR2/2 Very dark brown Nil mottles	Moderate moist, rapid	Few fine	0.10 / 6.5	0.00-0.10 0.20-0.30 0.55-0.65	Nil additional observations	
slope 2.0/2.0	line, 100 m nearby	Nil erosion		A12 0.09-0.35 Clear	Sandy Loam	Weak, loose	Nil inclusions and segregations	10YR2/1 Black Nil mottles/bleach	Dry, moderate	Very fine, very few	0.30 / 7.5	0.75-0.85 0.90-1.00		
				B21 0.35-0.55 Abrupt	Medium clay	Moderate, strong, sub- angular <20 mm	Nil inclusions and segregations	10YR2/1 Black Nil mottles/bleach	Dry, moderate	Very fine, very few	-			
				B22 0.55-0.85 Abrupt	Medium clay	Moderate, strong, sub- angular <20 mm	<2% calcium carbonate nodules	10YR2/1 Black Nil mottles/bleach	Dry, moderate	-	0.60 / 8.5			
				B23 0.85-1.00 EOBH	Medium clay	Moderate, strong, sub- angular <20 mm	Nil inclusions and segregations	10YR3/3 Dark brown Nil mottles/bleach	Dry, moderate	-	0.90 / 7.5			

SITE N10 removed

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
13	641522mE 7510593mN	Black Vertosol	Detailed - 50mm hand auger	04/06/2019







Land use			Surface	Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	e condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping, Very gently undulating plain,	Forage crops	Nil microrelief Extensively disturbed for	Self-mulching with crust 2-6 mm thick, minor sand on	A1 0.00 – 0.12 Abrupt	Light clay, sandy	Subangular blocky, peds 10-30 mm, firm	Nil inclusions and segregations	10YR2/1 Black Nil mottles / bleaching	Humid, well drained	Fine, very few	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
mid-slope, 1% slope		cropping Nil erosion	surface. Coarse fragments < 5 mm < 5%	B21 0.12 – 0.68 Abrupt	Medium heavy clay	Subangular blocky, peds 20-30 mm, strong	<5% calcium carbonate	10YR2/1 Black Nil mottles / bleaching	Humid, well drained	Fine, very few	0.30 / 7.0 0.60 / 6.5	0.90-1.00	
				B22 0.68 – 1.00 EOBH	Medium heavy clay, sandy	Subangular blocky, peds 40-60 mm, strong	<1% red nodules <2mm	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, well drained	Nil	0.90 / 6.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
8	640984mE 7512975mN	Black Dermosol	Detailed - 50mm hand auger	05/06/2019







Land use			Surface	Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
GUP Mid-slope	Grasses	Nil microrelief Semi disturbance	Cracking, Nil coarse fragments	A1 0.00-0.11 Abrupt	Sandy clay loam	Weak to moderate. Soft, sub rounded <10mm	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleaching	Dry, well	Present	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
		Nil erosion		B21 0.11-0.62 gradual	Light clay	Weak to moderate. Firm, sub rounded <20mm	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleaching	Dry, moderate – well	Present	0.30 / 7.5 0.60 / 7.5	0.90-1.00	
				B22 0.62-1.00 EOBH	Light clay	Weak to moderate. Firm, sub rounded <20mm	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleaching	Dry, moderate – well	Present	0.90 / 7.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
8	640940mE 7512735mN	Black Dermosol	Detailed - 50mm hand auger	05/06/2019







Land use			Surface	Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
GUP Mid-slope <2.0/<2.0	Grasses	Nil microrelief Extensive disturbance Nil erosion	Cracking, Nil coarse fragments	A1 0.00-0.15 Abrupt	Sandy clay loam	Weak to moderate. Soft, sub rounded <10mm	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleaching	Dry, well	Present	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
				B21 0.15-0.75 gradual	Light clay	Weak to moderate. Firm, sub rounded <20mm	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleaching	Dry, moderate – well	Present	0.30 / 7.5 0.60 / 7.5		
				B22 0.75-1.00 EOBH	Light clay	Weak to moderate. Firm, sub rounded <20mm	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleaching	Dry, moderate – well	Present	0.90 / 7.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
8	640810mE 7512936mN	Black Dermosol	Detailed - 50mm hand auger	05/06/2019







Land use		NAT II - 6	Surface		Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
GUP Mid-slope	Grasses	Nil microrelief Extensive disturbance Nil erosion	Cracking, Nil coarse fragments	A1 0.00-0.15 Abrupt	Sandy clay loam	Weak to moderate. Soft, sub rounded <10mm	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleaching	Dry, well	Present	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations	
				B21 0.15-0.75 gradual	Light clay	Weak to moderate. Firm, sub rounded <20mm	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleaching	Dry, moderate – well	Present	0.30 / 7.5 0.60 / 7.5			
				B22 0.75-1.00 EOBH	Light clay	Weak to moderate. Firm, sub rounded <20mm	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleaching	Dry, moderate – well	Present	0.90 / 7.5			

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
3	643200mE 7514334mN	Black Vertosol	Detailed - 50mm hand auger	06/06/2019

Landscape Surface







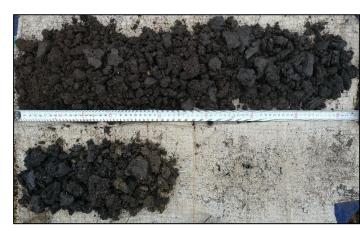
Soil Profile

Land use			Surface					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping, upper-slope, 1%/2% slope	Grasses	Nil microrelief Nil erosion	Self-mulching, cracking 2- 6+mm	A1 0.0 – 0.15 Abrupt	Light clay	Moderate, Sub- rounded, peds <10 mm, soft	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles	Dry, well drained	Fine, very few	0.10 / 7.0	0.00-0.10 0.20-0.30 0.55-0.60 0.80-0.90 0.90-1.00	Nil additional observations
		Extensively disturbed		B21 0.15 – 0.55 Abrupt	Medium clay	Moderate, Subangular blocky, peds <20 mm, firm	Nil inclusions or segregations	10YR2/1 Black 2% brown mottle	Dry, well drained	Very fine, very few	0.30 / 7.5		
				B22 0.55 – 1.00 EOBH	Medium clay	Moderate, Subangular blocky, peds <20 mm, firm	<2% calcium carbonate	7.5YR3/2 Dark brown Nil mottles	Dry, moderately well drained	Nil roots	0.60 / 7.0 0.90 / 7.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
3	643734mE 7514136mN	Black Vertosol	Detailed - 50mm hand auger	06/06/2019







Land use			Surface				So	oil Profile Description					
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping, upper-slope, 1%/1% slope	Grasses	Nil microrelief Nil erosion	self- mulching, cracking 2- 6+mm	A1 0.0 – 0.12 Abrupt	Light clay	Moderate, Sub- rounded, peds <10 mm, soft	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles	Humid, well drained	Fine, very few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
2.54		extensively disturbed		B21 0.12 – 0.40 Abrupt	Medium clay	Moderate, Subangular blocky, peds <20 mm, firm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles	Dry, well drained	Very fine, very few	0.30 / 6.5	0.90-1.00	
				B22 0.40 – 0.50 Abrupt	Medium clay	Moderate, Subangular blocky, peds <20 mm, very firm	Nil inclusions or segregations	7.5YR3/3 Dark brown 5% brown mottle	Dry, well drained	Very fine, very few	0.45 / 7.0		
				B23 0.50 – 0.80 Abrupt	Medium clay	Moderate, Subangular blocky, peds <20 mm, very firm	<1% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles	Dry, moderately well drained	Nil roots	0.60 / 7.0		
				B24 0.80 – 1.00 EOBH	Medium clay	Moderate, Subangular blocky, peds <20 mm, very firm	<2% calcium carbonate	10YR3/2 Nil mottles 5% brown mottle	Dry, moderately well drained	Nil roots	0.90 / 7.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
2	643797mE 7514822mN	Black Dermosol	Detailed - 50mm hand auger	06/06/2019

Landscape Surface





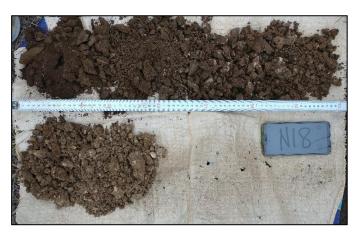


Land use			Surface					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	rbance condition,	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing GUP Stream channel /	Brigalow, Mount Coolibah	Nil microrelief Nil disturbance	Soft, Nil coarse fragments	A1 0.00-0.10 Abrupt	Loamy sand	Massive, loose	<1% coarse fragments	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well	Present	0.10 / 8.5	0.00-0.10 0.10-0.20 0.20-0.30 0.50-0.60 0.80-0.88	Nil additional observations
Depression <2% / <2%		Nil erosion		B21 0.10-0.20 Abrupt	Sandy loam	Moderate, very firm sub- angular <20mm	<1% coarse fragments	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well – moderate	Present	0.20 / 8.5		
				B22 0.20-0.47 Abrupt	Sandy loam	Moderate, very firm sub- angular <10mm	<10% coarse fragments	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well – moderate	Present	0.30 / 8.5		
				B23 0.47-0.88 EOBH	Sandy loam	Moderate, very firm sub- angular <10mm	<20% coarse fragments	10YR4/2 Brown Nil mottles / bleaching	Dry, well – moderate	Present – 0.60mbgl	0.60 / 8.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
2	643600mE 7514680mN	Black Dermosol	Detailed - 50mm hand auger	06/06/2019







Land use			Conform					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
GUP mid slope <1% / <1%	Brigalow, Mount Coolibah	Nil micro relief Nil disturbance	Soft, Nil coarse fragments	A1 0.00-0.14 Abrupt	Loamy sand	Massive, loose	<1% coarse fragments	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well	Present	0.10 / 8.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
		Nil erosion		B21 0.14-0.32 Abrupt	Sandy loam	Moderate, very firm sub- angular <20mm	<1% coarse fragments	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well – moderate	Present	0.20 / 8.5		
				B22 0.32-0.60 Diffused	Sandy loam	Moderate, very firm sub- angular <10mm	<10% coarse fragments	10YR3/1 Very dark grey 2% 10YR6/4 mottle. Nil bleaching	Dry, well – moderate	Present	0.30 / 8.5		
				B23 0.60-1.00 EOBH	Sandy loam	Moderate, very firm sub- angular <10mm	<20% coarse fragments	10YR4/2 Brown Nil mottles / bleaching	Dry, well – moderate	Present – 0.60mbgl	0.60 / 8.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
2	643668mE 7514813mN	Black Dermosol	Detailed - 50mm hand auger	06/06/2019







Land use			Surface					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
GUP Upper slope <2% / <2%	Brigalow, Mount Coolibah	Nil micro relief Nil disturbance	Soft, Nil coarse fragments	A1 0.00-0.18 Abrupt	Loamy sand	Massive, loose	<1% coarse fragments	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well	Present	0.10 / 8.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
		Nil erosion		B21 0.18-0.33 Abrupt	Sandy loam	Moderate, very firm sub-angular <20mm	<1% coarse fragments	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well – moderate	Present	0.20 / 8.5	0.90-0.95	
				B22 0.33-0.68 Diffuse	Sandy loam	Moderate, very firm sub-angular <10mm	<10% coarse fragments	10YR3/1 Very dark grey 2% 10YR6/4 mottle. Nil bleaching	Dry, well – moderate	Present	0.30 / 8.5		
				B23 0.68-1.00 EOBH	Sandy loam	Moderate, very firm sub-angular <10mm	<20% coarse fragments	10YR4/2 Brown Nil mottles / bleaching	Dry, well – moderate	Present – 0.60mbgl	0.60 / 8.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
4	642943mE 7513907mN	Black Dermosol	Detailed - 50mm hand auger	07/06/2019







Land use								Soil Profile Description	1				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing Alluvial near stream	Brigalow	Nil microrelief Nil	Minor cracking Soft, <10%	A1 0.00-0.12 Abrupt	Sandy Ioam	Weak to moderate, soft sub-rounded <10mm	Nil inclusions / segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well	Present	0.10 / 8.5	0.00-0.10 0.20-0.30 0.50-0.60	Nil additional observations
channel 1% / 0%		disturbance Nearby sheet / gully erosion	coarse fragments <5mm	B21 0.12-0.37 Abrupt	Sandy Ioam	Moderate, firm sub-rounded <10mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well – moderate	Present	0.20 / 8.5	0.75-0.85 0.90-1.00	
				B22 0.37-0.68 Abrupt	Sandy loam	Moderate, firm sub-rounded <20mm	<2% calcium carbonate	7.5YR3/2 Dark brown Nil mottle / bleaching	Dry, well – moderate	Present	0.30 / 8.5		
				B23 0.68-0.85 Abrupt	Sandy clay loam	Moderate, very firm sub-rounded <20mm	<20% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well – moderate	Present	-		
				B24 0.85-1.00 EOBH	Sandy clay loam	Moderate, very firm sub-rounded <20mm	<5% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well – moderate	-	0.90 / 8.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
4	642847mE 7513907mN	Black Dermosol	Detailed - 50mm hand auger	07/06/2019







Land use							S	oil Profile Description					
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing Alluvial near stream	Brigalow	Nil microrelief Nil	Minor cracking Soft, <10%	A1 0.00-0.10 Abrupt	Sandy loam	Weak to moderate, soft sub-rounded <10mm	Nil inclusions / segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well	Present	0.10 / 7.5	0.00-0.10 0.20-0.30 0.50-0.60	Nil additional observations
channel 1% / 0%		disturbance Nearby sheet / gully erosion	coarse fragments <5mm	B21 0.10-0.40 Abrupt	Sandy loam	Moderate, firm sub- rounded <10mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well – moderate	Present	0.20 / 8.5	0.80-0.90 0.90-1.00	
				B22 0.40-0.58 Abrupt	Sandy loam	Moderate, firm sub- rounded <20mm	<2% calcium carbonate	7.5YR3/2 Dark brown Nil mottle / bleaching	Dry, well – moderate	Present	0.30 / 8.5		
				B23 0.58-0.90 Abrupt	Sandy clay loam	Moderate, very firm sub-rounded <20mm	10% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well – moderate	Present	-		
				B24 0.90-1.00 EOBH	Sandy clay loam	Moderate, very firm sub-rounded <20mm	<5% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well – moderate				

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
4	642838mE 7513991mN	Black Dermosol	Detailed - 50mm hand auger	07/06/2019







Land use		Microrelief						Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing Depression <1% / <1%	Brigalow woodlands	Nil microrelief Semi disturbance Minor sheet	Minor cracking Soft, <10% coarse fragments	A1 0.00-0.11 Abrupt	Sandy loam	Weak to moderate, soft sub- rounded <10mm	Nil inclusions / segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well	Present	0.10 / 7.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
		erosion	<5mm	B21 0.11-0.48 Abrupt	Sandy loam	Moderate, firm sub- rounded <10mm	Nil inclusions / segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well – moderate	Present	0.30 / 8.5	0.30 1.00	
				B22 0.48-1.00 EOBH	Sandy clay loam	Moderate, very firm sub- rounded <20mm	<5% calcium carbonate	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well – moderate	Present	0.60 / 8.5 0.90 / 8.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
11	642506mE 7511103mN	Grey Dermosol	Detailed - 50mm hand auger	07/06/2019

Landscape





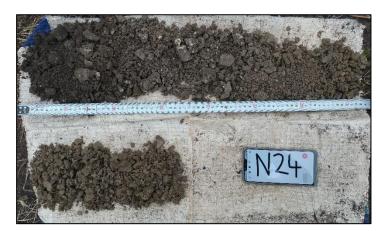


Land use		24: 1: 6	Surface					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing Depression Alluvial / stream	Mixed vegetation	Nil microrelief Cropping nearby	Cracking Firm Nil coarse fragments	A1 0.00-0.12 Abrupt	Clay loam	Weak, soft sub- rounded <10mm	Nil inclusions / segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well	Present	0.10 / 8.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
channel nearby <1% / <1%		disturbance Nil erosion		B21 0.12-0.48 gradual	Light clay	Weak to moderate, firm sub- rounded <10mm	<5% weathered rock	10YR4/2 Dark greyish brown Nil mottles / bleaching	Dry, well – moderate	Present	0.30 / 8.5	0.90-1.00	
				B22 0.48-1.00 EOBH	Light clay	Moderate, very firm sub- rounded <20mm	<5% calcium carbonate	10YR4/2 Dark greyish brown Nil mottles / bleaching	Dry, well – moderate	Present	0.60 / 8.5 0.90 / 8.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
11	642250mE 7511049mN	Grey Dermosol	Detailed - 50mm hand auger	07/06/2019







Land use		Microrelief		Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing Depression Alluvial / stream	Mixed vegetation	Nil microrelief Cropping nearby	Cracking Firm Nil coarse fragments	A1 0.00-0.15 Abrupt	Clay loam	Weak, soft sub- rounded <10mm	Nil inclusions / segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well	Present	0.10 / 8.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
channel nearby <1% / <1%		disturbance Nil erosion		B21 0.15-0.50 gradual	Light clay	Weak to moderate, firm sub- rounded <10mm	<5% calcium carbonate	10YR4/2 Dark greyish brown Nil mottles / bleaching	Dry, well – moderate	Present	0.30 / 8.5	0.90-1.00	
				B22 0.50-1.00 EOBH	Light clay	Moderate, very firm sub- rounded <20mm	Nil inclusions / segregations	10YR4/2 Dark greyish brown Nil mottles / bleaching	Dry, well – moderate	Present	0.60 / 8.5 0.90 / 8.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
11	642810mE 7511185mN	Grey Dermosol	Detailed - 50mm hand auger	28/06/2019







Land use		Microrelief	Surface		Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Grazing Depression	Mixed vegetation	Nil microrelief	Cracking Firm	A1 0.00-0.12	Clay loam	Weak, soft	Nil inclusions / segregations	10YR3/1 Very dark grey	Dry, well	Present	0.10 / 8.5	0.00-0.10 0.20-0.30	Nil additional observations	
Alluvial / stream		Cropping nearby	Nil coarse fragments	Abrupt		rounded <10mm		Nil mottles / bleaching				0.50-0.60 0.80-0.90		
channel nearby		disturbance Nil erosion		B21 0.12-0.62	Light clay	Weak to moderate,	Nil inclusions / segregations	10YR4/2 Dark greyish	Dry, well – moderate	Present	0.30 / 8.5	0.90-1.00		
<1% / <1%				gradual		firm sub- rounded		brown Nil mottles /						
				B22 0.62-1.00	Light clay	<10mm Moderate, very firm	<5% calcium	bleaching 10YR4/2 Dark greyish	Dry, well – moderate	Present	0.60 / 8.5 0.90 / 8.5			
				EOBH		sub- rounded	Carbonate	brown Nil mottles /	moderate		0.30 / 0.3			
						<20mm		bleaching						

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
6	642370mE 7512434mN	Black Dermosol	Detailed - 50mm hand auger	28/06/2019







Land use		Microrelief	ce condition,					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing GUP Lower slope 1% / 1%	Short grasses	Nil microrelief Extensive disturbance	Minor cracking	A1 0.00-0.14 Clear	Sandy clay	Weak, soft sub- rounded <10mm	Nil inclusions / segregations	10YR3/1 Very dark grey Nil mottles/bleach	Dry, moderate	Few fine	0.10 / 6.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
		Nil erosion	erosion	B21 0.14-0.33 clear	Medium clay	Weak to moderate, firm sub- rounded <10mm	Nil inclusions / segregations	10YR2/2 Very dark brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.30 / 6.5	0.90-1.00	
				B22 0.33-0.90 gradual	Medium clay	Moderate, firm sub- rounded <20mm	Nil inclusions / segregations	10YR3/3 Dark brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.60 / 7.0		
				B23 0.90-1.00 EOBH	Medium clay	Moderate, very firm sub- rounded <20mm	<2% calcium carbonate	10YR3/3 Dark brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.90 / 7.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
6	642614mE 7510764mN	Black Dermosol	Detailed - 50mm hand auger	28/06/2019







Land use			Surface										
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Mid-slope, 1% slope	Forage cropping	Nil Microrelief	Firm, cracking 2mm, Nil coarse	A1 0.0 – 0.13 Abrupt	Sandy clay loam	Weak, sub- rounded peds 5-20 mm, firm	Nil inclusions or segregations	10YR3/1 Very dark grey Nil mottles	Humid, well drained	Fine, very few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60	Nil additional observations
		Nil erosion Extensively	fragments	B21 0.13 – 0.50 gradual	Sandy clay loam	Moderate, peds 30-40 mm, very firm	Nil inclusions or segregations	10YR2/1 Black Nil mottles	Humid, well drained	Nil roots	0.30 / 6.5	0.80-0.90 0.90-1.00	
		cleared	B22 0.50 – 0.75 clear	Light clay, sandy	Subangular blocky, moderate, peds <20 mm, very firm	<2% calcium carbonate	10YR2/1 Nil mottles Black	Humid, moderately well drained	Nil roots	0.60 / 6.5			
				B23 0.75 – 1.00 EOBH	Medium clay, sandy	Subangular blocky, moderate, peds <20 mm, very firm	<2% calcium carbonate	10YR3/1 Very dark grey Nil mottles	Humid, moderately well drained	Nil roots	0.90 / 6.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
10	643924mE 7513310mN	Black Dermosol	Detailed - 50mm hand auger	28/07/2019







Land use			Surface					Soil Profile Description						
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	urbance condition, rosion surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Grazing GUP lower slope <2% / <2%	Eucalyptus species	Nil microrelief Semi disturbed,	Minor cracks, firm, Nil coarse fragments	A11 0.0 – 0.08 Abrupt	Sandy clay loam	Massive	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 7.5	0.00-0.05 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations	
		contour banks nearby	ntour	A12 0.08 – 0.35 gradual	Sandy clay loam	Weak, sub- rounded peds <10 mm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.20 / 7.5	0.90-1.00		
				B22 0.35 – 0.60 gradual	Sandy clay loam	Subangular blocky, moderate, peds <20 mm, firm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.30 / 7.5			
				B23 0.60 – 1.00 EOBH	Medium clay, sandy	Subangular blocky, moderate, peds <20 mm, firm	<15% calcium carbonate	10YR3/3 Dark brown Nil mottles / bleaching	Dry, well – moderate drained	Present	0.60 / 7.5 0.90 / 7.5			

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
9	643062mE 7512049mN	Black Vertosol	Detailed - 50mm hand auger	28/06/2019







Land use			Surface condition, surface rock					Soil Profile Desc	ription				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping / Grazing GUP mid slope 2% / 2%	Cropping	Nil microrelief Extensive disturbed, contour	Cracking, firm, Nil coarse fragments	A11 0.0 – 0.11 Abrupt	Light medium clay	Moderate, firm, sub- rounded peds <10 mm	<1% coarse fragments <2mm	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 8.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
		banks nearby		B21 0.11 – 0.35 Abrupt	Medium clay	Moderate - strong, firm, sub-rounded peds 20 mm	<2% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 8.0		
				B22 0.35 – 0.66 Clear	Medium clay	Moderate - strong, firm, sub-rounded peds 20 mm	<30% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.60 / 8.0		
				B23 0.66 – 1.00 EOBH	Medium clay	Moderate - strong, firm, sub-rounded peds 20 mm	<20% calcium carbonate	10YR4/4 Dark yellowish brown Nil mottles / bleaching	Dry, well- moderate drained	Nil	0.90 / 8.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
9	643464mE 7512936mN	Black Vertosol	Detailed - 50mm hand auger	29/06/2019







Land use			Surface					Soil Profile Descripti	on				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping / Grazing GUP upper slope 2% / 2%	Cropping	Nil microrelief Extensive disturbed, contour	Cracking, firm, Nil coarse fragments	A11 0.0 – 0.11 Abrupt	Light medium clay	Moderate, firm, sub- rounded peds <10 mm	<1% coarse fragments <2mm	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 8.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
230, 230		banks nearby		B21 0.11 – 0.35 Abrupt	Medium clay	Moderate - strong, firm, sub-rounded peds 20 mm	<2% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 8.0	0.50 1.60	
				B22 0.35 – 0.66 Clear	Medium clay	Moderate - strong, firm, sub-rounded peds 20 mm	<30% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.60 / 8.0		
				B23 0.66 – 1.00 EOBH	Medium clay	Moderate - strong, firm, sub-rounded peds 20 mm	<10% calcium carbonate	10YR4/4 Dark yellowish brown Nil mottles / bleaching	Dry, well- moderate drained	Nil	0.90 / 8.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:29
9	643487mE 7512205mN	Black Vertosol	Detailed - 50mm hand auger	29/06/2019







Land use			nce condition,					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping / Grazing GUP Lower slope / flat plain	Cropping	Nil microrelief Extensive disturbed, contour	Cracking, firm, Nil coarse fragments	A11 0.0 – 0.10 Abrupt	Light clay	Weak, firm, sub- rounded peds <10 mm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 8.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
<1% / 1%		banks nearby		B21 0.11 – 0.50 Abrupt	Medium clay	Moderate - strong, firm, sub- angular peds <20 mm	Nil inclusions or segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 8.0	0.50 1.00	
				B22 0.50 – 1.00 EOBH	Medium clay	Moderate - strong, firm, sub- angular peds <20 mm	<2% calcium carbonate	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well- moderate drained	Present	0.60 / 7.0 0.90 / 7.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
9	644077mE 7512794mN	Black Vertosol	Detailed - 50mm hand auger	29/06/2019







Land use								Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping / Grazing GUP Lower slope / flat plain	Cropping	Nil microrelief Extensive disturbed, contour	Cracking, firm, Nil coarse fragments	A11 0.0 – 0.10 Abrupt	Light clay	Weak, firm, sub- rounded peds <10 mm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 8.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
<1% / 1%		banks nearby		B21 0.11 – 0.53 Abrupt	Medium clay	Moderate - strong, firm, sub- angular peds 20-40 mm	Nil inclusions or segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 8.0	0.90-1.00	
				B22 0.53 – 1.00 EOBH	Medium clay	Moderate - strong, firm, sub- angular peds 20-40 mm	<2% calcium carbonate	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well- moderate drained	Present	0.60 / 7.0 0.90 / 7.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
9	643707mE 7512426mN	Black Vertosol	Detailed - 50mm hand auger	29/06/2019







Land use								Soil Profile Descripti	on				
Landform Pattern, Element, Slope	Pattern, Vegetation Element, Slope	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping / Grazing GUP Lower slope / flat	Cropping	Nil microrelief Extensive disturbed,	Cracking, firm, Nil coarse fragments	A11 0.0 – 0.12 Abrupt	Light clay	Weak, firm, sub-rounded peds <10 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 8.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
plain <1% / 1%	contour	B21 0.12 – 0.45 Abrupt	Medium clay	Moderate - strong, firm, sub-angular peds 20-40 mm	Nil inclusions / segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 8.0	0.90-1.00			
				B22 0.45 – 0.60 Abrupt	Medium clay	Moderate - strong, firm, sub-angular peds 30-60 mm	Nil inclusions / segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well- moderate drained	Present	0.60 / 7.0		
				B22 0.60 – 1.00 EOBH	Medium clay	Moderate - strong, firm, sub-angular peds 30-60 mm	<2% calcium carbonate	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, well- moderate drained	Present	0.90 / 7.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
9	643069mE 7512379mN	Black Vertosol	Detailed - 50mm hand auger	29/06/2019

<u>Landscape</u> <u>Surface</u> <u>Soil Profile</u>







Land use		"						Soil Profile Desc	ription_				
<u>Landform</u> <u>Pattern,</u> <u>Element,</u> <u>Slope</u>	Pattern. Vegetation ! Element. Slope	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping / Grazing GUP mid slope 2% / 2%	Cropping	Nil microrelief Extensive disturbed, contour	Cracking, firm, Nil coarse fragments	A11 0.0 – 0.20 Abrupt	Light medium clay	Moderate, firm, sub- rounded peds <10 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 8.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
2.07 2.0		banks nearby		B21 0.20 – 0.46 Abrupt	Medium clay	Moderate - strong, firm, sub-rounded peds 20 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 8.0	_ 0.90-1.00	
				B22 0.46 – 0.80 Abrupt	Medium clay	Moderate - strong, firm, sub-rounded peds 20 mm	<2% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.60 / 8.0		
				B23 0.80 – 1.00 EOBH	Medium clay	Moderate - strong, firm, sub-rounded peds 20 mm	<2% calcium carbonate	10YR4/4 Dark yellowish brown Nil mottles / bleaching	Dry, well- moderate drained	Nil	0.90 / 8.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
12	643659mE 7511986mN	Black Vertosol	Detailed - 50mm hand auger	29/06/2019







Land use								Soil Profile Descrip	otion				
Landform Pattern, Element, Slope	Pattern, Vegetation Element, Slope	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregation s	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping / Grazing GUP mid slope	Cropping	Nil microrelief Extensive disturbed,	Minor cracking, self- mulching, Nil coarse	A11 0.0 – 0.04 Abrupt	Light medium clay	Moderate, firm, sub-rounded peds 20-50 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 8.0	0.00-0.04 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
2% / 2%	•	A12 0.04 – 0.20 Abrupt	Medium clay	Moderate, firm, sub-rounded peds 50-80 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 8.0	0.90-1.00			
				B21 0.20 – 0.45 Abrupt	Medium heavy clay	Moderate, - strong firm, sub-rounded peds 50-80 mm	Nil inclusions / segregations	10YR2/1 Black Nil mottles / bleaching	Dry, well- moderate drained	Present	0.60 / 8.0		
				B22 0.45 – 1.00 EOBH	Medium heavy clay	Moderate, - strong firm, sub-rounded peds 50-80 mm	Nil inclusions / segregations	10YR2/1 Black Nil mottles / bleaching	Dry, well- moderate drained	Nil	0.90 / 8.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
12	644933mE 7511241mN	Black Vertosol	Detailed - 50mm hand auger	30/06/2019







Land use								Soil Profile Descripti	on				
Landform Pattern, Element, Slope	Pattern, Vegetation Element,	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregation s	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping / Grazing GUP mid slope	Cropping	Nil microrelief Extensive disturbed,	Minor cracking, self- mulching, Nil coarse	A11 0.0 – 0.06 Abrupt	Light medium clay	Moderate, firm, sub-rounded peds 20-50 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 8.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
2% / 2%		A12 0.06 – 0.22 Abrupt	Medium clay	Moderate, firm, sub-rounded peds 50-80 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 8.0	0.90-1.00			
				B21 0.22 – 0.50 Abrupt	Medium heavy clay	Moderate, - strong firm, sub-rounded peds 50-80 mm	Nil inclusions / segregations	10YR2/1 Black Nil mottles / bleaching	Dry, well- moderate drained	Present	0.60 / 8.0		
				B22 0.50 – 1.00 EOBH	Medium heavy clay	Moderate, - strong firm, sub-rounded peds 50-80 mm	Nil inclusions / segregations	10YR2/1 Black Nil mottles / bleaching	Dry, well- moderate drained	Nil	0.90 / 8.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
12	643706mE 7511439mN	Black Vertosol	Detailed - 50mm hand auger	30/06/2019







Land use					Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Cropping / Grazing GUP mid slope	Cropping	Nil microrelief Extensive disturbed,	Minor cracking, self- mulching, Nil coarse	A11 0.0 – 0.04 Abrupt	Light medium clay	Moderate, firm, sub-rounded peds 20-50 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 8.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations	
2% / 2%		Nil erosion	fragments	A12 0.04 – 0.23 Abrupt	Medium clay	Moderate, firm, sub-rounded peds 50-80 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 8.0	0.90-1.00		
				B21 0.23 – 0.47 Abrupt	Medium heavy clay	Moderate, - strong firm, sub-rounded peds 50-80 mm	Nil inclusions / segregations	10YR2/1 Black Nil mottles / bleaching	Dry, well- moderate drained	Present	0.60 / 8.0			
				B22 0.47 – 1.00 EOBH	Medium heavy clay	Moderate, - strong firm, sub-rounded peds 50-80 mm	Nil inclusions / segregations	10YR2/1 Black Nil mottles / bleaching	Dry, well- moderate drained	Nil	0.90 / 8.0			

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
15	645726mE 7510395mN	Black Vertosol	Detailed - 50mm hand auger	30/06/2019







Land use			Surface		Soil Profile Description								
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing GUP Lower slope to depression 1% / 2%	Mixed vegetation, eucalyptus species, Grasses	Nil microrelief Semi disturbed, Nil erosion	Cracking, <2% coarse fragments <5mm	A11 0.0 – 0.12 Abrupt	Light clay	Moderate, firm, sub- angular <20 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
				B21 0.12 – 0.90 Abrupt	Medium clay	Moderate- strong, strong, sub- angular <20 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 7.5 0.60 / 7.5		
				B22 0.90 – 1.00 EOBH	Medium clay	Moderate- strong, strong, sub- angular <20 mm	<2% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.90 / 8.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
15	645496mE 7510399mN	Black Vertosol	Detailed - 50mm hand auger	30/06/2019







Land use			Surface		Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Grazing GUP Lower slope to depression 1% / 2%	Mixed vegetation, eucalyptus species, Grasses	Nil microrelief Semi disturbed, Nil erosion	Cracking, <2% coarse fragments <5mm	A11 0.0 – 0.13 Abrupt	Light clay	Moderate, firm, sub- angular <20 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations	
				B21 0.13 – 0.85 Abrupt	Medium clay	Moderate- strong, strong, sub- angular <20 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 7.5 0.60 / 7.5	0.50-1.00		
				B22 0.85 – 1.00 EOBH	Medium clay	Moderate- strong, strong, sub- angular <20 mm	<2% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.90 / 8.0			

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
15	644518mE 7510978mN	Black Vertosol	Detailed - 50mm hand auger	30/06/2019

Landscape Surface Soil Profile





Picture not available

Land use Landform		Microrelief	Surface					Soil Profile	Description				
Pattern, Element, Slope	Vegetation	Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing GUP mid slope 1% / 2%	Mixed vegetation, eucalyptus species, Grasses	Nil microrelief Semi disturbed, Nil erosion	Cracking, <2% coarse fragments <5mm	A11 0.0 – 0.14 Abrupt	Light clay	Moderate, firm, sub- angular <20 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
				B21 0.14 – 1.00 EOBH	Medium clay	Moderate- strong, strong, sub- angular <20 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 7.5 0.60 / 7.5 0.90 / 8.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
14	642742mE 7510104mN	Red Chromosol	Detailed - 50mm hand auger	30/06/2019







Land use					Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Grazing	Grasses	Nil	Firm	A11	Sandy	Weak-	Nil inclusions /	10YR3/2	Dry, well	Present	0.10 / 6.5	0.00-0.10	Nil additional	
GUP Mid -		microrelief	Nil coarse	0.0 – 0.12	loam	moderate,	segregations	Very dark greyish	drained			0.20-0.30	observations	
lower slope		Extensive	fragments	Abrupt		firm, sub-		brown				0.50-0.60		
<2% / <2%		disturbed,				rounded		Nil mottles /				0.80-0.90		
		Nil erosion				<20 mm		bleaching				0.90-1.00		
				B21	Sandy clay	Moderate,	Nil inclusions /	5YR4/3	Dry, well-	Present	0.30 / 7.0			
				0.12 - 0.70	loam	firm, sub-	segregations	Reddish brown	moderate		0.60 / 7.5			
				Abrupt		angular		Nil mottles /	drained					
						<20 mm		bleaching						
				B22	Light clay	Moderate,	<5% calcium	7.5YR4/4	Dry, well-	Present	0.90 / 7.5			
				0.70 - 1.00		v.firm, sub-	carbonate	Brown	moderate					
				EOBH		angular		Nil mottles /	drained					
						<20 mm		bleaching						

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
14	642252mE 7510143mN	Red Chromosol	Detailed - 50mm hand auger	01/07/2019







Land use			Surface		Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Grazing GUP Mid - lower slope <2% / <2%	Grasses	Nil microrelief Extensive disturbed, Nil erosion	Firm Nil coarse fragments	A11 0.0 – 0.14 Clear	Sandy loam	Weak- moderate, firm, sub- rounded <20 mm	Nil inclusions / segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations	
				B21 0.14 – 0.70 Abrupt	Light clay	Moderate, firm, sub- angular <20 mm	Nil inclusions / segregations	5YR4/3 Reddish brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.30 / 7.0 0.60 / 7.5			
				B22 0.70 – 1.00 EOBH	Light clay	Moderate, v.firm, sub- angular <20 mm	<5% calcium carbonate	7.5YR4/4 Brown Nil mottles / bleaching	Dry, well- moderate drained	Present	0.90 / 7.5			

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
10	643716mE 7513193mN	Black Dermosol	Detailed - 50mm hand auger	011/07/2019







Land use			Surface					Soil Profile Descrip	otion				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing GUP upper slope	Eucalyptus species	Nil microrelief Semi	Minor cracking, firm, nil coarse	A11 0.0 – 0.06 Abrupt	Sandy clay loam	Massive	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 7.5	0.00-0.10 0.20-0.30 0.50-0.60	Nil additional observations
<2% / <2%		disturbed, contour banks nearby Nil erosion	fragments	A12 0.06 – 0.20 gradual	Sandy clay loam	Weak, sub- rounded peds <10 mm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.20 / 7.5	0.80-0.90 0.90-1.00	
				B21 0.20 – 0.46 gradual	Sandy clay loam	Subangular blocky, moderate, peds <20 mm, firm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.30 / 7.5		
				B22 0.46 – 1.00 EOBH	Medium clay, sandy	Subangular blocky, moderate, peds <20 mm, firm	<20% calcium carbonate	10YR3/3 Dark reddish brown Nil mottles / bleaching	Dry, well – moderate drained	Present	0.60 / 7.5 0.90 / 7.5		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
17	643817mE 7508323mN	Black Vertosol	Detailed - 50mm hand auger	01/07/2019







Land use			Surface		Soil Profile Description								
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing GUP Lower slope 1% / 1%	Short grasses	Nil microrelief Extensive disturbance	Minor cracking	A1 0.00-0.15 Abrupt	Light clay	Weak, soft sub- rounded <10mm	Nil inclusions / segregations	10YR3/1 Very dark grey Nil mottles/bleach	Dry, moderate	Few fine	0.10 / 6.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
		Nil erosion		B21 0.15-0.45 Abrupt	Medium clay	Weak to moderate, firm sub- rounded <10mm	Nil inclusions / segregations	10YR2/2 Very dark brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.30 / 6.5	0.90-1.00	
				B22 0.45-1.00 EOBH	Medium clay	Moderate, firm sub- rounded <20mm	Nil inclusions / segregations	10YR3/3 Dark brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.60 / 7.0 0.90 / 7.0		

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
10	643622mE 7513388mN	Black Dermosol	Detailed - 50mm hand auger	01/07/2019







Land use			Surface					Soil Profile Desc	ription				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing GUP upper slope <2% / <2%	Eucalyptus species	Nil microrelief Semi disturbed,	Minor cracks, firm, Nil coarse fragments	A11 0.0 – 0.09 Abrupt	Sandy clay loam	Massive	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.10 / 7.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
		contour banks nearby	, i	A12 0.09 – 0.25 gradual	Sandy clay loam	Weak, sub- rounded peds <10 mm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.20 / 7.5	0.90-1.00	
				B22 0.25 – 0.50 gradual	Sandy clay loam	Subangular blocky, moderate, peds <20 mm, firm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Present	0.30 / 7.5		
				B23 0.50 – 1.00 EOBH	Medium clay, sandy	Subangular blocky, moderate, peds <20 mm, firm	<20% calcium carbonate	10YR3/3 Dark brown Nil mottles / bleaching	Dry, well – moderate drained	Present	0.60 / 7.5 0.90 / 7.5		

SITE 4-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
17	643527mE 7507664mN	Black Vertosol	Detailed - 50mm hand auger	30/06/2018

Landscape Surface







Soil Profile

Land use		NA: - 6	Cfo					Soil Profile Descripti	on				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing, Very gently undulating plains, upper	Cleared, very sparse mixed regrowth	Nil microrelief Semi cleared, Nil erosion	Cracking 20- 40mm, self mulching Nil coarse	A1 0.00-0.14 Abrupt	Light clay	Weak, firm, <10mm sub-angular	Nil inclusion or segregations	10YR3/2 Very dark greyish brown Nil mottles/bleach	Dry, moderate	Fine, few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.70-0.80	Nil additional observations
slope, <1.0/1.0			fragments	B21 0.14-0.90 Abrupt	Medium clay	Moderate, firm <40% 20-60mm, <20% 60-100 sub- angular blocky peds	<1% calcium carbonate nodules	10YR3/2 Very dark greyish brown Nil mottles/bleach	Dry, moderate	Very fine, very few	0.30 / 6.5 0.60 / 7.5	0.90-1.00	
				B22 0.90-1.00 EOBH	Medium clay	Moderate, firm <40% 20-60mm, <20% 60-100 sub- angular blocky peds	2% calcium carbonate nodules	10YR4/2 Dark greyish brown Mottles 2% 10YR3/2 Very dark greyish brown Nil bleach	Dry, Imperfect	Very fine, very few	0.90 / 8.0		

SITE 5-SCL-Depression

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
16	642166mE 7508999mN	Black Vertosol	Detailed - 50mm hand auger	04/06/2019







Land use Landform		Microrelief	Surface – condition, surface rock		Soil Profile Description										
Pattern, Element, Slope	Vegetation	Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations		
Gently undulating plain 2.0/2.0	Grasses, recent regrowth and shrubs	Microrelief present – Depression <0.2m deep,	Self-mulching with cracking Nil coarse fragments	A1 0.00-0.17 Abrupt	Light medium clay	Weak, firm <20mm sub- angular	<1% Calcium carbonate <2mm	10YR3/1 Very dark grey Nil mottle / bleaching	Dry, Well drained	Common, medium	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations		
		40% coverage Extensive clearing Nil Erosion		B2 0.17-1.00 EOBH	Medium heavy clay	Moderate, Very firm 20-40mm sub- angular	<2% Calcium carbonate <2mm	10YR3/2 Very dark greyish brown Nil mottle / bleaching	Dry, Moderate drained	Few, medium	0.30 / 6.5 0.60 / 6.5 0.90 / 6.5	0.90-1.00			

SITE 5-SCL-Mound

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class:	Site Survey Type:	Survey Date:
16	642163mE 7508998mN	Black Vertosol	Detailed - 50mm hand auger	04/06/2019







Land use			Surface					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Gently undulating plain, mid- slope 2.0/2.0	101	Microrelief present – Mound 40% coverage	Self-mulching with cracking Nil coarse fragments	A1 0.00-0.12 Abrupt	Light clay	Moderate, soft <20mm sub- angular	Nil inclusions and segregations	10YR2/1 Black Nil mottle / bleaching	Humid, Well drained	Common, medium	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
		Extensive clearing Nil Erosion		B21 0.12-0.60 Abrupt	Medium heavy clay	Moderate, Firm <30mm sub- angular	Nil inclusions and segregations	10YR3/1 Very dark grey Nil mottle / bleaching	Humid, Well drained	Few, medium	0.30 / 7.0		
				B22 0.60-1.00 EOBH	Medium heavy clay	Moderate, Firm <30mm sub- angular	<2% Calcium carbonate	10YR3/1 Very dark grey Nil mottle / bleaching	Humid, Well - moderate drained	Few, fine	0.10 / 7.0		

SITE 6-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class:	Site Survey Type:	Survey Date:
13	641287mE 7510129mN	Black Vertosol	Detailed - 50mm hand auger	03/06/2019







Land use		BAL	Surface					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing, mid-slope, 2.0/2.0	Grasses	Nil microrelief Extensively disturbance	Humid self- mulching with crust 2-6 mm thick, minor	A1 0.00 – 0.15 Abrupt	Light clay, sandy	Weak, firm Subangular blocky, peds 10-30 mm,	Nil inclusions and segregations	10YR2/1 Black Nil mottles / bleaching	Humid, Well – moderate drained	Fine, very few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
		Nil erosion	sand on surface. Coarse fragments`<5	B21 0.15 – 0.30 Abrupt	Medium heavy clay	Weak, firm Subangular blocky, peds 20-30 mm,	Nil inclusions and segregations	10YR2/1 Black Nil mottles / bleaching	Humid, Well – moderate drained	Fine, very few	0.35 / 7.0	0.90-1.00	
			mm <5%	B22 0.30 – 0.80 Abrupt	Medium heavy clay	Weak to moderate, very firm Subangular blocky, peds 20-30 mm,	<5% calcium carbonate	10YR2/1 Black Nil mottles / bleaching	Humid, Well – moderate drained	Fine, very few	0.60 / 7.0		
				B23 0.80 – 1.00 EOBH	Medium heavy clay, sandy	Weak to moderate, very firm Subangular blocky, peds 40-60 mm,	Nil inclusions and segregations	10YR4/2 Dark greyish brown Nil mottles / bleaching	Humid, Well – moderate drained	Nil roots	0.90 / 7.5		

SITE 7-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class:	Site Survey Type:	Survey Date:
13	641298mE 7510328mN	Black Vertosol	Detailed - 50mm hand auger	03/06/2019







Land use					Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Cropping, Very gently undulating plain,	Forage crops	Nil microrelief Extensively disturbed for	Self-mulching with crust 2-6 mm thick, minor sand on	A1 0.00 – 0.14 Abrupt	Light clay, sandy	Subangular blocky, peds 10-30 mm, firm	Nil inclusions and segregations	10YR2/1 Black Nil mottles / bleaching	Humid, well drained	Fine, very few	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations	
mid-slope, 1% slope		cropping Nil erosion	surface. Coarse fragments < 5 mm < 5%	B21 0.14 – 0.70 Abrupt	Medium heavy clay	Subangular blocky, peds 20-30 mm, strong	<5% calcium carbonate	10YR2/1 Black Nil mottles / bleaching	Humid, well drained	Fine, very few	0.30 / 7.0 0.60 / 6.5	0.90-1.00		
				B22 0.70 – 1.00 EOBH	Medium heavy clay, sandy	Subangular blocky, peds 40-60 mm, strong	<1% red nodules <2mm	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, well drained	Nil roots	0.90 / 6.5			

SITE 8-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
13	641694mE 7510274 mN	Black Vertosol	Detailed - 50mm hand auger	03/06/2019







Land use			Surface		Soil Profile Description								
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping, mid-slope, 2% slope	Forage crops	Nil microrelief Nil erosion	Humid, soft, cracking <2mm, occasional	A1 0.0 – 0.10 Abrupt	Medium Clay	Subangular blocky, peds 20-30 mm, firm	Nil inclusions and segregations	10YR2/1 Black Nil mottles / bleaching	Humid, well drained	Fine, very few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
		Extensively disturbed for cropping	course fragments <5mm	B21 0.10 – 0.70 Abrupt	Medium heavy clay	Subangular blocky, peds 20-30 mm, strong	Nil inclusions and segregations	10YR2/1 Black Nil mottles / bleaching	Humid, well drained	Fine, very few	0.30 / 6.5 0.60 / 7.0	0.90-1.00	
				B22 0.70 – 1.00 EOBH	Medium heavy clay	Subangular blocky, peds 40-60 mm, strong	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Humid, well drained	Nil roots	0.90 / 6.5		

SITE 9-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
14	641919mE 7510236mN	Red Chromosol (Brown Chromosol sub-	Detailed - 50mm hand auger	03/06/2019
		dominant)		







Land use								Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping, mid-slope, 2% slope	Forage crops	Nil microrelief Nil erosion Extensively disturbed for cropping	Self-mulching, Minor cracking <2mm, Nil course fragments	A1 0.0 – 0.07 Abrupt B21 0.07 – 0.60 Abrupt	Light clay, sandy Light clay, sandy	Subangular blocky, peds 20-30 mm, firm Subangular blocky, peds 20-30 mm, strong	Nil inclusions and segregations 20% calcium carbonate	10YR3/2 Greyish brown Nil mottles / bleaching 10YR4/3 Brown Mottle: 5% 10YR6/4 light	Humid, well drained Humid, moderately well drained	Fine, very few Fine, very few	0.10 / 6.5 0.30 / 7.0 0.60 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
				B22 0.60 – 1.00 EOBH	Medium clay	Subangular blocky, moderate, peds 40-60 mm, firm	Nil inclusions and segregations	yellowish brown 10YR4/4 Dark yellowish brown Nil mottles / bleaching	dry, well drained	Nil roots	0.90 / 7.0		

SITE 10-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
14	642525mE 7510097mN	Red Chromosol	Detailed - 50mm hand auger	30/06/2018







Land use								Soil Profile Description					
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing Very gently undulating	Buffel grass	Nil microrelief Extensive	Minor cracking 2- 6mm, soft,	A1 0.00-0.13 Abrupt	Sandy clay	Moderate, firm, <10mm sub-angular	<1% calcium carbonate nodules	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, moderate	Few, fine	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60	First borehole, 0.20 mbgl Second
plain, Midslope 2.0/1.0		cleared Nil erosion	Nil coarse fragments	A2 0.13-0.39 Abrupt	Light sandy clay	Moderate, firm, <10mm sub-angular	Nil inclusion or segregations	10YR3/3 Dark Brown Nil mottles / bleaching	Dry, moderate	Few, fine	0.30 / 7.0	0.70-0.80 0.90-1.00	borehole 0.40 mbgl Refusal likely
				B21 0.39-0.84 Abrupt	Light sandy clay	Moderate, firm, <10mm sub-angular	<10% calcium carbonate nodules	5YR4/4 Reddish brown Nil mottles / bleaching	Dry, moderate	Few, fine	0.60 / 7.5		due to roots, no physical barrier
				B22 0.84-1.00 EOBH	Light clay	Moderate, firm, <10mm sub-angular	<2% calcium carbonate nodules	10YR4/4 Dark yellowish brown Nil mottles/bleach	Dry, moderate	Very few, very fine	0.90 / 8.5		

SITE 32-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
6	641452mE 7512060mN	Black Dermosol	Detailed - 50mm hand auger	05/06/2019







Land use			Surface		Soil Profile Description								
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Upper- slope, 2% slope	Grasses, with Brigalow nearby	Nil Microrelief	Firm, cracking 2mm, Nil coarse	A1 0.0 – 0.12 gradual	Sandy clay loam	Weak, sub- rounded peds <10 mm, soft	Nil inclusions or segregations	10YR2/2 Very dark brown Nil mottles / bleaching	Humid, well drained	Fine, very few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60	Nil additional observations
Ì	·	Nil erosion Extensively	fragments	B21 0.12 – 0.22 gradual	Sandy clay loam	Weak, peds <10 mm, very firm	Nil inclusions or segregations	10YR2/2 Very dark brown Nil mottles / bleaching	Humid, well drained	Fine, very few	0.20 / 6.5	0.80-0.90 0.90-1.00	
		cleared		B22 0.22 – 0.55 gradual	Light clay, sandy	Subangular blocky, moderate, peds <20 mm, very firm	<2% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Humid, moderatel y well drained	Nil roots	0.30 / 6.5		
				B23 0.55 – 1.00 EOBH	Medium clay, sandy	Subangular blocky, moderate, peds <20 mm, very firm	<2% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Humid, moderatel y well drained	Nil roots	0.60 / 7.0 0.90 / 6.5		

SITE 60-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
3	643839mE 7514447mN	Black Vertosol	Detailed - 50mm hand auger	07/06/2019







Land use													
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregation s	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping, upper-slope, 0% / 2% slope	Grasses	Nil microrelief Nil erosion	self-mulching, cracking 6+mm Nil coarse fragments	A1 0.0 – 0.13 Abrupt	Light clay	Moderate, Sub- rounded, peds <10 mm, soft	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Fine, very few	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
		extensively disturbed		B21 0.13 – 0.41 Abrupt	Medium clay	Moderate, Subangular blocky, peds <20 mm, firm	Nil inclusions or segregations	10YR2/1 Black Nil mottles / bleaching	Dry, well drained	Very fine, very few	0.30 / 7.5		
				B22 0.41 – 1.00 EOBH	Medium clay	Moderate, Subangular blocky, peds <20 mm, firm	<2% calcium carbonate	10YR2/1 Black Nil mottles / bleaching	Dry, moderately well drained	Nil roots	0.60 / 7.0 0.90 / 7.0		

SITE 65-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
9	643019mE 7513552mN	Black Vertosol	Detailed - 50mm hand auger	30/06/2018







Land use		NA: - 6	Surface	Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping Very gently undulating plain Flat plain	Cropping, Brigalow 100- 200m nearby	Nil microrelief Cropping disturbance Nil erosion	Soft, loose, Nil coarse fragments	A1 0.00-0.11 Abrupt	Light clay	Moderate, weak <10mm sub- angular	Nil inclusions and segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, moderate	Few fine	0.10 / 6.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
1.0/1.0				B21 0.11-0.80 Abrupt	Medium clay	Moderate, weak <10mm sub- angular	Nil inclusions and segregations	10YR2/2 Very dark brown Nil mottles / bleaching	Dry, moderate	Very fine, very few	0.30 / 6.5 0.60 / 7.0		
				B22 0.80-1.00 EOBH	Medium clay	Moderate, weak <10mm sub- angular	2% calcium carbonate nodules	10YR3/3 Dark brown Nil mottles / bleaching	Dry, moderate	Very fine, very few	0.90 / 7.5		

SITE 77-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
6	641884mE 7512916mN	Black Dermosol	Detailed - 50mm hand auger	07/06/2019







Land use		Microrelief	Surface					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Disturbance Erosion	oance condition,	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping, upper-slope, 1% / 2% slope	Grasses, with Brigalow nearby	Nil microrelief Nil erosion	Firm with areas of self- mulching, cracking 2-	A1 0.0 – 0.13 Abrupt	Sandy clay loam	Weak, Sub- rounded, peds <10 mm, soft	Nil inclusions or segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, well drained	Fine, very few	0.10 / 7.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
		Semi disturbed	6+mm	B21 0.13 – 0.39 gradual	Medium clay	Moderate, Subangular blocky, peds <20 mm, firm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, well drained	Very fine, very few	0.30 / 7.5	0.90-1.00	
				B22 0.39 – 0.90 clear	Medium clay	Moderate, Subangular blocky, peds <20 mm, firm	<2% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, moderately well drained	Very fine, very few	0.60 / 7.0		
				B23 0.90 – 1.00 EOBH	Medium clay	Moderate, Subangular blocky, peds <20 mm, firm	<2% calcium carbonate	10YR4/2 Dark greyish brown Nil mottles / bleaching	Dry, moderately well drained	Very fine, very few	0.90 / 7.0		

SITE 80-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
6	642045mE 7511689mN	Black Dermosol	Detailed - 50mm hand auger	05/06/2019







Land use			Surface					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	ce condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Upper- slope, 2% slope	Grasses, with Brigalow nearby	Nil Microrelief Nil erosion	Firm, cracking 2mm, Nil coarse fragments	A1 0.0 – 0.11 Abrupt	Sandy clay loam	Weak, sub- rounded peds <10 mm, soft	Nil inclusions or segregations	10YR2/2 Very dark brown Nil mottles / bleaching	Humid, well drained	Fine, very few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90	Nil additional observations
		Extensively cleared		A2 0.11 – 0.22 clear	Sandy clay loam	Weak, peds <10 mm, very firm	Nil inclusions or segregations	10YR2/2 Nil mottles / bleaching	Humid, well drained	Nil roots	0.20 / 6.5	0.90-1.00	
				B21 0.22 – 0.49 gradual	Light clay, sandy	Subangular blocky, moderate, peds <20 mm, very firm	<2% calcium carbonate	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, moderately well drained	Nil roots	0.30 / 7.0		
				B22 0.49 – 1.00 EOBH	Medium clay, sandy	Subangular blocky, moderate, peds <20 mm, very firm	<1% calcium carbonate	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Humid, moderately well drained	Nil roots	0.60 / 7.0 0.90 / 6.5		

SITE 91-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
6	643899mE 7510777mN	Black Dermosol	Detailed - 50mm hand auger	30/06/2018







Land use			Surface		Soil Profile Description										
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations		
Grazing, Gently undulating plain, Midslope	Cleared, nearby remnant Belah	Nil microrelief Extensive disturbance Nil erosion	Minor cracking, firm, Nil coarse fragments	A1 0.00-0.12 Abrupt	Sandy Clay	Moderate, weak <20mm sub- angular	Nil inclusions and segregations	10YR2/1 Black Nil mottles / bleaching	Dry, moderate	Few, fine	0.10 / 6.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations		
2.0/1.0				B21 0.12-0.50 Clear	Light sandy clay	Moderate, firm 20- 50mm sub- angular	Nil inclusions and segregations	10YR2/2 Very dark brown Nil mottles / bleaching	Dry, moderate	Few, fine	0.30 / 6.5				
				B22 0.50-1.00 EOBH	Light clay	Moderate, firm 20- 50mm sub- angular blocky	<2% calcium carbonate nodules	10YR3/3 Dark brown Mottles: <2% 10YR5/3 Brown Nil bleach	Dry, moderate	Very few, very fine	0.60 / 7.0 0.60 / 7.5				

SITE 97-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
14	642351mE 7510427mN	Red Chromosol (Brown Chromosol sub-	Detailed - 50mm hand auger	04/06/2019
		dominant)		







Land use			Surface		Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	nce condition,	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Mid-slope,	Forage	Nil	Firm, cracking	A1	Sandy loam	Weak, sub-	Nil inclusions	10YR3/1	Humid,	Fine, very few	0.05 / 6.5	0.00-0.10	Nil additional	
1% slope	cropping	Microrelief	2mm, Nil	0.0 - 0.08		rounded peds	or	Very dark grey	well			0.20-0.30	observations	
			coarse	Abrupt		5-20 mm, firm	segregations	Nil mottles /	drained			0.50-0.60		
		Nil erosion	fragments					bleaching				0.80-0.90		
				B21	Sandy clay	Moderate,	Nil inclusions	10YR3/2	Humid,	Nil roots	0.30 / 6.5	0.90-1.00		
		Extensively		0.08 – 0.47	loam	peds 30-40	or	Very dark greyish	well					
		cleared		Abrupt		mm, very firm	segregations	brown	drained					
								Nil mottles /						
				D22	12.14.1	6.11	40/ 1:	bleaching		NI'I .	0.60 / 6.5			
				B22 0.47 – 0.70	Light clay,	Subangular	<1% calcium	10YR2/1	Humid,	Nil roots	0.60 / 6.5			
				0.47 = 0.70 Abrupt	sandy	blocky, moderate,	carbonate	Black Nil mottles /	moderately well					
				Abrupt		peds <30 mm,		bleaching	drained					
						very firm		bleaching	dramed					
				B23	Medium	Subangular	<10% calcium	10YR3/2	Humid,	Nil roots	0.90 / 6.5			
				0.70 - 1.00	clay, sandy	blocky,	carbonate	Very dark greyish	moderately		,			
				EOBH	1 1 1,7, 1 2 2 1 2 2	moderate,		brown	well					
						,			drained					

Land use		Microrelief Sur						Soil Profile I	Description				
Landform Pattern, Element, Slope	Vegetation	Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
						peds <20 mm, very firm		Nil mottles / bleaching					

SITE 99-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
6	7510427mE 7511265mN	Black Dermosol	Detailed - 50mm hand auger	04/06/2019







Land use	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock					Soil Profile	Description				
Landform Pattern, Element, Slope				Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Mid-slope,	Forage	Nil	Firm, cracking	A1	Sandy	Weak, sub-	Nil inclusions or	10YR3/1	Humid,	Fine, very few	0.10 / 6.5	0.00-0.10	Nil additional
<1% slope	cropping	Microrelief	2mm, Nil	0.0 - 0.18	loam	rounded	segregations	Very dark grey	well			0.20-0.30	observations
			coarse	Abrupt		peds 5-20		Nil mottles /	drained			0.50-0.60	
		Nil erosion	fragments			mm, firm		bleaching				0.80-0.90	
				B21	Sandy clay	Moderate,	Nil inclusions or	10YR2/1	Humid,	Nil roots	0.30 / 6.5	0.90-1.00	
		Extensively		0.18 - 0.50	loam	peds 30-40	segregations	Black	well				
		cleared		Abrupt		mm, very		Nil mottles /	drained				
						firm		bleaching					
				B22	Light clay,	Subangular	<5% calcium	10YR2/1	Humid,	Nil roots	0.60 / 6.5		
				0.50 - 1.00	sandy	blocky,	carbonate	Black	moderately				
				EOBH		moderate,		Nil mottles /	well				
						peds <40		bleaching	drained				
						mm, very							
						firm							

SITE 100-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
13	641820mE 7510822mN	Black Vertosol	Detailed - 50mm hand auger	03/06/2019







Land use		Mai li - f	Surface					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping, upper-slope, 1% / 2% slope	Forage crops	Nil microrelief Nil erosion	Self-mulching, minor crust, cracking 2- 6+mm	A1 0.0 – 0.17 Abrupt	Light clay	Subangular blocky, weak, peds <20 mm, firm	<5% coarse fragments	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, well drained	Fine, very few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
		Extensively disturbed for cropping		B2 0.17 – 1.00 EOBH	Medium clay	Subangular blocky, weak, peds <30 mm, very firm	<1% coarse fragments	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, Moderately well drained	Nil roots	0.30 / 7.0 0.60 / 7.0 0.90 / 6.5		

SITE 101-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
16	641451mE 7509683mN	Black Vertosol	Detailed - 50mm hand auger	03/06/2019







Land use			surface rock					Soil Profile	Description					
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Grazing, mid-slope, 1% / 2% slope	Grasses, recent regrowth and shrubs	Normal gilgai <0.2 m deep, 30-40% coverage	Self-mulching, minor crust, cracking 2- 6+mm	A1 0.0 – 0.13 Abrupt	Medium Clay	Subangular blocky, moderate, peds <20 mm, soft	Nil inclusions or segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, well drained	Fine, very few		· ·	No samples taken	Nil additional observations
		Nil erosion Extensively disturbed for cropping		B21 0.13 – 0.62 Abrupt	Medium clay	Subangular blocky, moderate, peds <30 mm, firm	Nil inclusions or segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, well drained	Nil roots	0.30 / 7.0 0.60 / 7.0			
				B22 0.62 – 1.00 EOBH	Medium clay	Subangular blocky, moderate, peds <30 mm, very firm	<2% calcium carbonate	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, moderately well drained	Nil roots	0.90 / 6.5			

SITE 102-SCL-M (Gilgai mound)

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
16	641663mE 7508746mN	Black Vertosol	Detailed - 50mm hand auger	03/06/2019







Land use		Microrelief						Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing, mid-slope, 2% / 1%	Grasses, recent regrowth and shrubs	Crabhole gilgai <0.2 m deep, 30% coverage	Self-mulching, minor crust, cracking 2- 6+mm Nil coarse	A1 0.0 – 0.12 Abrupt	Light clay	Subangular blocky, moderate, peds <20 mm, soft	Nil inclusions or segregations	10YR2/1 Black Nil mottles / bleaching	Humid, well drained	Fine, very few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
		Nil erosion Extensively disturbed	fragments	B21 0.12 – 0.50 Abrupt	Medium heavy clay	Subangular blocky, moderate, peds <30 mm, firm	Nil inclusions or segregations	10YR2/1 Black Nil mottles / bleaching	Humid, well drained	Fine, very few	0.30 / 7.0 0.60 / 7.0		
				B22 0.50 – 1.00 EOBH	Medium heavy clay	Subangular blocky, moderate, peds <30 mm, very firm	<2% calcium carbonate	10YR2/1 Black Nil mottles / bleaching	Humid, moderately well drained	Nil roots	0.90 / 6.5		

SITE 102-SCL-D (Gilgai depression)

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
16	641658mE 7508739mN	Black Vertosol	Detailed - 50mm hand auger	03/06/2019







Land use			Surface condition, surface rock					Soil Profile	Description				
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion		Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregation s	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing, mid-slope, 2% slope, Gilgai depression	Grasses, recent regrowth and shrubs	Crabhole gilgai <0.2 m deep, 30% coverage	Self-mulching, minor crust, cracking 2- 6+mm	A1 0.0 – 0.10 Abrupt	Medium Clay	Subangular blocky, moderate, peds <20 mm, soft	Nil inclusions or segregations	10YR2/1 Black Nil mottles / bleaching	Humid, well drained	Fine, very few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations
		Nil erosion Extensively disturbed for cropping		B21 0.10 – 0.60 Abrupt	Medium heavy clay	Subangular blocky, moderate, peds <30 mm, firm	Nil inclusions or segregations	10YR2/1 Black Nil mottles / bleaching	Humid, well drained	Fine, very few	0.30 / 7.0 0.60 / 7.0		
				B22 0.60 – 1.00 EOBH	Medium heavy clay	Subangular blocky, moderate, peds <30 mm, very firm	<2% calcium carbonate	10YR2/1 Black Nil mottles / bleaching	Humid, moderately well drained	Nil roots	0.90 / 6.5		

SITE 103-SCL-M (Gilgai mound)

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
16	641736mE 7508275mN	Black Vertosol	Detailed - 50mm hand auger	04/06/2019







Land use		Microrelief Disturbance Erosion		Soil Profile Description										
Landform Pattern, Element, Slope	Vegetation		Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations	
Grazing, mid-slope, 2% slope, Gilgai depression	Grasses, recent regrowth and shrubs	Crabhole gilgai <0.2 m deep, 50% coverage		A1 0.0 – 0.12 Abrupt	Light clay	Subangular blocky, moderate, peds <10 mm, soft	Nil inclusions or segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, well drained	Fine, very few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations	
		Nil erosion Extensively disturbed for cropping		B21 0.12 – 0.60 Abrupt	Medium clay	Subangular blocky, moderate, peds <30 mm, firm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Humid, well drained	Fine, very few	0.30 / 7.0 0.60 / 7.0			
				B22 0.60 – 1.00 EOBH	Medium heavy clay	Subangular blocky, moderate, peds <30 mm, very firm	<2% calcium carbonate	10YR4/2 Dark greyish brown Nil mottles / bleaching	Humid, moderately well drained	Nil roots	0.90 / 6.5			

SITE 103-SCL-D (Gilgai depression)

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
16	641732mE 7508275mN	Black Vertosol	Detailed - 50mm hand auger	04/06/2019

Landscape Surface







Land use				Soil Profile Description									
Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Grazing, mid-slope, 2% slope, Gilgai depression	Grasses, recent regrowth and shrubs	Crabhole gilgai <0.22 m deep, 50% coverage Nil erosion Extensively disturbed for cropping Self-mulching, minor crust, cracking 2- 6+mm	cracking 2-	A1 0.0 – 0.10 Abrupt	Light Medium Clay	Subangular blocky, moderate, peds <20 mm, weak	<1% calcium carbonate	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, well drained	Fine, very few	0.10 / 7.0	0.00-0.10 0.20-0.30 0.50-0.60 0.83-0.90 0.90-1.00	Nil additional observations
				B21 0.10 – 0.83 Abrupt	Medium heavy clay	Subangular blocky, moderate, peds 20-40 mm, very firm	<2% calcium carbonate	10YR3/1 Very dark grey Nil mottles / bleaching	Dry, moderately well drained	Fine, very few	0.30 / 6.5 0.60 / 6.5		
				B23 0.83 – 1.00 EOBH	Medium heavy clay	Subangular blocky, moderate, peds 20-40 mm, very firm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, moderately well drained	Nil roots	0.90 / 6.5		

SITE 110-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
17	644310mE 7508052mN	Black Vertosol	Detailed - 50mm hand auger	30/06/2018







Land use Soil Profile Description Landform Microrelief Surface																
Pattern, Element, Slope	Vegetation	Disturbance Erosion	condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations			
Cropping Flat plain, level,	Cropping	Nil microrelief Cropping	Cracking 20- 40mm, fine surface mulch	A1 0.0-0.13 Abrupt	Light clay	Weak, firm, <10mm sub-angular	2% 2-6mm coarse fragments	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, moderate	Fine, few	0.10 / 6.5	0.00-0.10 0.20-0.30 0.50-0.60	Nil additional observations			
0.0/0.0%		disturbance Nil erosion	bance Nil coarse	B21 0.13-0.38 Abrupt	Medium clay	Moderate, firm <40% 20-60mm, <20% 60-100 sub- angular blocky peds	<1% black nodules <1% calcium carbonate nodules	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, moderate	Very fine, very few	0.30 / 6.5	0.70-0.80 0.90-1.00				
				B22 0.38-0.82 Abrupt	Medium clay	Moderate, firm <40% 20-60mm, <20% 60-100 sub- angular blocky peds	<5% calcium carbonate nodules	10YR4/2 Dark greyish brown Nil mottles / bleaching	Dry, moderate	Very fine, very few	0.60 / 8.0					
				B23 0.82 – 1.00 EOBH	Light clay	Moderate, firm <20mm, sub- angular blocky peds	<2% calcium carbonate nodules	10YR4/4 Dark yellowish brown Nil mottles / bleaching	Dry, Imperfect	Very fine, very few	0.90 / 8.0					

SITE 115-SCL

Map Unit	Location (GDA94 ZONE 55):	Aust. Soil Class.:	Site Survey Type:	Survey Date:
17	645410mE 7509123mN	Black Vertosol	Detailed - 50mm hand auger	30/06/2018







Land use		Microrelief Disturbance Erosion		Soil Profile Description										
Landform Pattern, Element, Slope	Vegetation		getation Disturbance cond	Surface condition, surface rock	Horizon Depth (m), Boundary	Field Texture	Structure, Strength	Inclusions Segregations	Colour, Mottle, Bleaching	Moisture, Drainage	Roots	Depth (m) / Field pH	Sample (m)	Observations
Cropping Very gently undulating plain Flat plain 1.0/1.0	Cropping	Nil microrelief Cropping disturbance Nil erosion	2-5% medium pebbles >600mm Soft, loose	A1 0.00-0.16 Abrupt	Light clay	Moderate, weak <10mm sub- angular blocky	<2% calcium carbonate nodules	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, moderate	Few fine	0.10 / 6.0	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	Nil additional observations	
1.07 1.0				B2 0.16-1.00 EOBH	Medium clay	Strong, firm <10mm sub- angular blocky	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Dry, moderate	Very fine, very few	0.30 / 6.5 0.60 / 7.0 0.90 / 7.5			