

SITE N1

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 depression 2.0/1.0	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 0.90-1.00	Nil additional observations
				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		
				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		

SITE N2

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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	0.00-0.10 0.20-0.30 0.50-0.60 0.80-0.90 0.90-1.00	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		

SITE N3

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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
				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		

SITE N4

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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	Sandy loam	Weak, soft <10mm sub-rounded	Nil inclusions and segregations	10YR3/2 Very dark greyish brown Nil mottles/bleach	Moderate moist, rapid	Few fine	0.10 / 6.0	0.00-0.10	Nil additional observations
				B21 0.17-0.44 Abrupt	Light clay with minor sand	Moderate, firm <30mm sub-angular	<2% pale red nodules	10YR4/2 Dark greyish brown Nil mottles/bleach	Moderately moist, moderate	Very fine, very few	0.30 / 7.5	0.20-0.30	
				B22 0.44-1.00 EOBH	Medium clay	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	0.50-0.60 0.80-0.90 0.90-1.00	

SITE N5

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



Surface



Soil Profile



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

SITE N6

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 midslope 3.0/3.0	Buffel grass	Nil microrelief Semi disturbed Nil erosion	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 0.90-1.00	Large root encountered at 0.60 mbgl
				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		
				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		

SITE N7

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 midslope 2.0/2.0	Buffel grass, nearby brigalow	Nil microrelief Nil disturbance Nil erosion	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	Nil additional observations
				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	0.20-0.30	
				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	0.50-0.60	
				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	0.80-0.90 0.90-1.00	

SITE N8

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 midslope 2.0/2.0	Buffel grass	Nil microrelief Extensively disturbed Nil erosion	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 0.90-1.00	Nil additional observations
				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		
				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		

SITE N9

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 slope 2.0/2.0	Buffel grass, Brigalow, and belah on fence line, 100 m nearby	Nil microrelief Nil disturbed Nil erosion	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 0.75-0.85 0.90-1.00	Nil additional observations
				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		
				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

SITE N11

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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, mid-slope, 1% slope	Forage crops	Nil microrelief Extensively disturbed for cropping Nil erosion	Self-mulching with crust 2-6 mm thick, minor sand on surface. Coarse fragments <5 mm <5%	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 0.90-1.00	Nil additional observations
				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		
				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		

SITE N12

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion	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 0.90-1.00	Nil additional observations
				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		
				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		

SITE N13

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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		

SITE N14

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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		

SITE N15

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Extensively disturbed	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
				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		

SITE N16

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 extensively disturbed	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 0.90-1.00	Nil additional observations
				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		
				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		

SITE N17

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 / Depression <2% / <2%	Brigalow, Mount Coolibah	Nil microrelief Nil disturbance Nil erosion	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
				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		

SITE N18

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion	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
				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		

SITE N19

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion	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 0.90-0.95	Nil additional observations
				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		
				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		

SITE N20

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 channel 1% / 0%	Brigalow	Nil microrelief Nil disturbance Nearby sheet / gully erosion	Minor cracking Soft, <10% coarse fragments <5mm	A1 0.00-0.12 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 / 8.5	0.00-0.10 0.20-0.30 0.50-0.60 0.75-0.85 0.90-1.00	Nil additional observations
				B21 0.12-0.37 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		
				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		

SITE N21

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 channel 1% / 0%	Brigalow	Nil microrelief Nil disturbance Nearby sheet / gully erosion	Minor cracking Soft, <10% coarse fragments <5mm	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	Nil additional observations
				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	0.20-0.30 0.50-0.60 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				

SITE N22

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 erosion	Minor cracking Soft, <10% coarse fragments <5mm	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
				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		
				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		

SITE N23

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 channel nearby <1% / <1%	Mixed vegetation	Nil microrelief Cropping nearby disturbance Nil erosion	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	Nil additional observations
				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	0.20-0.30	
				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	0.50-0.60 0.80-0.90 0.90-1.00	

SITE N24

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 channel nearby <1% / <1%	Mixed vegetation	Nil microrelief Cropping nearby disturbance Nil erosion	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	Nil additional observations
				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	0.20-0.30	
				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	0.50-0.60 0.80-0.90 0.90-1.00	

SITE N25

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 channel nearby <1% / <1%	Mixed vegetation	Nil microrelief Cropping nearby disturbance Nil erosion	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 0.90-1.00	Nil additional observations
				B21 0.12-0.62 gradual	Light clay	Weak to moderate, firm sub- rounded <10mm	Nil inclusions / segregations	10YR4/2 Dark greyish brown Nil mottles / bleaching	Dry, well – moderate	Present	0.30 / 8.5		
				B22 0.62-1.00 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		

SITE N26

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion	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 0.90-1.00	Nil additional observations
				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		
				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		

SITE N27

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion Extensively cleared	Firm, cracking 2mm, Nil coarse fragments	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 0.80-0.90 0.90-1.00	Nil additional observations
				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		
				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		

SITE N28

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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, contour banks nearby	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	Nil additional observations
				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	0.20-0.30	
				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	0.50-0.60	
				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	0.80-0.90 0.90-1.00	

SITE N29

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 banks nearby	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
				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		

SITE N30

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 banks nearby	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
				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	<10% calcium carbonate	10YR4/4 Dark yellowish brown Nil mottles / bleaching	Dry, well- moderate drained	Nil	0.90 / 8.0		

SITE N31

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 <1% / 1%	Cropping	Nil microrelief Extensive disturbed, contour banks nearby	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
				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		
				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		

SITE N32

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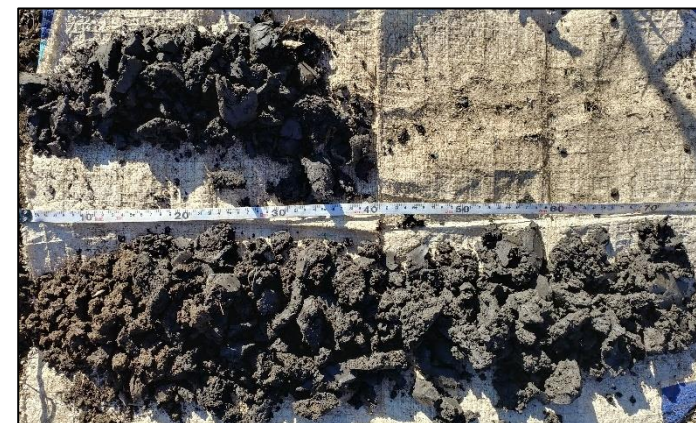
Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 <1% / 1%	Cropping	Nil microrelief Extensive disturbed, contour banks nearby	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
				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		
				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		

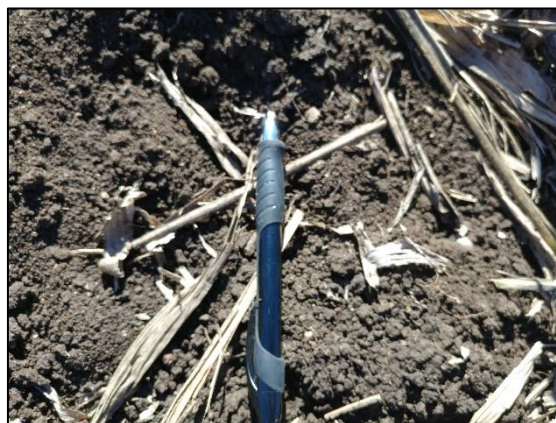
SITE N33

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 <1% / 1%	Cropping	Nil microrelief Extensive disturbed, contour banks nearby	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 0.90-1.00	Nil additional observations
				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		
				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		

SITE N34

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

<u>Land use</u> <u>Landform</u> <u>Pattern,</u> <u>Element,</u> <u>Slope</u>	<u>Vegetation</u>	<u>Microrelief</u> <u>Disturbance</u> <u>Erosion</u>	<u>Surface</u> <u>condition,</u> <u>surface rock</u>	<u>Soil Profile Description</u>									
				<u>Horizon</u> <u>Depth (m),</u> <u>Boundary</u>	<u>Field</u> <u>Texture</u>	<u>Structure,</u> <u>Strength</u>	<u>Inclusions</u> <u>Segregations</u>	<u>Colour, Mottle,</u> <u>Bleaching</u>	<u>Moisture,</u> <u>Drainage</u>	<u>Roots</u>	<u>Depth (m) /</u> <u>Field pH</u>	<u>Sample (m)</u>	<u>Observations</u>
Cropping / Grazing GUP mid slope 2% / 2%	Cropping	Nil microrelief Extensive disturbed, contour banks nearby	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
				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		
				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		

SITE N35

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 2% / 2%	Cropping	Nil microrelief Extensive disturbed, Nil erosion	Minor cracking, self- mulching, Nil coarse fragments	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 0.90-1.00	Nil additional observations
				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		
				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		

SITE N36

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 2% / 2%	Cropping	Nil microrelief Extensive disturbed, Nil erosion	Minor cracking, self- mulching, Nil coarse fragments	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 0.90-1.00	Nil additional observations
				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		
				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		

SITE N37

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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, Nil erosion	Minor cracking, self- mulching, Nil coarse fragments	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 0.90-1.00	Nil additional observations
				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		
				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		

SITE N38

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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		

SITE N39

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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		
				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		

SITE N40

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



Surface



Soil Profile

Picture not available

Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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		

SITE N41

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 – 0.12 Abrupt	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 0.12 – 0.70 Abrupt	Sandy clay loam	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		

SITE N42

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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		

SITE N43

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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, contour banks nearby Nil erosion	Minor cracking, firm, nil coarse fragments	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	Nil additional observations
				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	0.20-0.30	
				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	0.50-0.60	
				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	0.80-0.90 0.90-1.00	

SITE N44

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion	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 0.90-1.00	Nil additional observations
				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		
				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		

SITE N45

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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, contour banks nearby	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	Nil additional observations
				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	0.20-0.30	
				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	0.50-0.60	
				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	0.80-0.90 0.90-1.00	

SITE 4-SCL

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 slope, <1.0/1.0	Cleared, very sparse mixed regrowth	Nil microrelief Semi cleared, Nil erosion	Cracking 20- 40mm, self mulching Nil coarse fragments	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	Nil additional observations
				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	0.20-0.30 0.50-0.60 0.70-0.80	
				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	0.90-1.00	

SITE 5-SCL-Depression

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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, 40% coverage Extensive clearing Nil Erosion	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 0.90-1.00	Nil additional observations
				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		

SITE 5-SCL-Mound

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Extensive clearing Nil Erosion	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
				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 13	Location (GDA94 ZONE 55): 641287mE 7510129mN	Aust. Soil Class: Black Vertosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 03/06/2019
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Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion	Humid self- mulching with crust 2-6 mm thick, minor sand on surface. Coarse fragments` <5 mm <5%	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 0.90-1.00	Nil additional observations
				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		
				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 13	Location (GDA94 ZONE 55): 641298mE 7510328mN	Aust. Soil Class: Black Vertosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 03/06/2019
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Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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, mid-slope, 1% slope	Forage crops	Nil microrelief Extensively disturbed for cropping Nil erosion	Self-mulching with crust 2-6 mm thick, minor sand on surface. Coarse fragments <5 mm <5%	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 0.90-1.00	Nil additional observations
				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		
				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 13	Location (GDA94 ZONE 55): 641694mE 7510274 mN	Aust. Soil Class.: Black Vertosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 03/06/2019
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Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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	Humid, soft, cracking <2mm, occasional course fragments <5mm	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 0.90-1.00	Nil additional observations
				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		
				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		

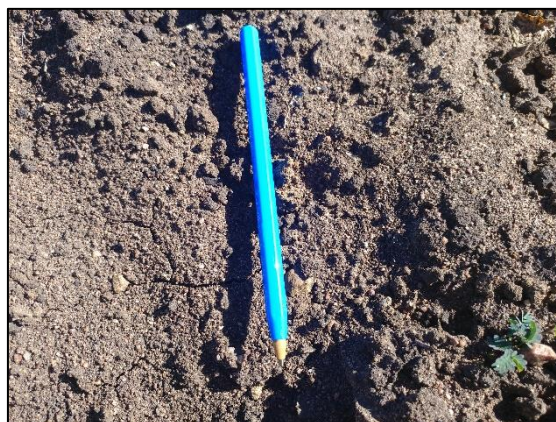
SITE 9-SCL

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 coarse fragments	A1 0.0 – 0.07 Abrupt	Light clay, sandy	Subangular blocky, peds 20-30 mm, firm	Nil inclusions and segregations	10YR3/2 Greyish 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 0.90-1.00	Nil additional observations
				B21 0.07 – 0.60 Abrupt	Light clay, sandy	Subangular blocky, peds 20-30 mm, strong	20% calcium carbonate	10YR4/3 Brown Mottle: 5% 10YR6/4 light yellowish brown	Humid, moderately well drained	Fine, very few	0.30 / 7.0 0.60 / 7.0		
				B22 0.60 – 1.00 EOBH	Medium clay	Subangular blocky, moderate, peds 40-60 mm, firm	Nil inclusions and segregations	10YR4/4 Dark yellowish brown Nil mottles / bleaching	dry, well drained	Nil roots	0.90 / 7.0		

SITE 10-SCL

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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, Midslope 2.0/1.0	Buffel grass	Nil microrelief Extensive cleared Nil erosion	Minor cracking 2- 6mm, soft, Nil coarse fragments	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	First borehole, 0.20 mbgl Second borehole 0.40 mbgl Refusal likely due to roots, no physical barrier
				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	0.20-0.30 0.50-0.60	
				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	0.70-0.80 0.90-1.00	
				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 6	Location (GDA94 ZONE 55): 641452mE 7512060mN	Aust. Soil Class.: Black Dermosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 05/06/2019
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Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Extensively cleared	Firm, cracking 2mm, Nil coarse fragments	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 0.80-0.90 0.90-1.00	Nil additional observations
				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		
				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, moderate 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, moderate y well drained	Nil roots	0.60 / 7.0 0.90 / 6.5		

SITE 60-SCL

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 extensively disturbed	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
				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 9	Location (GDA94 ZONE 55): 643019mE 7513552mN	Aust. Soil Class.: Black Vertosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 30/06/2018
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Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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, 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
				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 6	Location (GDA94 ZONE 55): 641884mE 7512916mN	Aust. Soil Class.: Black Dermosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 07/06/2019
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Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Semi disturbed	Firm with areas of self- mulching, cracking 2- 6+mm	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 0.90-1.00	Nil additional observations
				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		
				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 6	Location (GDA94 ZONE 55): 642045mE 7511689mN	Aust. Soil Class.: Black Dermosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 05/06/2019
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Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Extensively cleared	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 0.90-1.00	Nil additional observations
				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		
				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 6	Location (GDA94 ZONE 55): 643899mE 7510777mN	Aust. Soil Class.: Black Dermosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 30/06/2018
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Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 2.0/1.0	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
				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 14	Location (GDA94 ZONE 55): 642351mE 7510427mN	Aust. Soil Class.: Red Chromosol (Brown Chromosol sub-dominant)	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 04/06/2019
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Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion Extensively cleared	Firm, cracking 2mm, Nil coarse fragments	A1 0.0 – 0.08 Abrupt	Sandy loam	Weak, sub- rounded peds 5-20 mm, firm	Nil inclusions or segregations	10YR3/1 Very dark grey Nil mottles / bleaching	Humid, well drained	Fine, very few	0.05 / 6.5	0.00-0.10	Nil additional observations
				B21 0.08 – 0.47 Abrupt	Sandy clay loam	Moderate, peds 30-40 mm, very firm	Nil inclusions or segregations	10YR3/2 Very dark greyish brown Nil mottles / bleaching	Humid, well drained	Nil roots	0.30 / 6.5	0.20-0.30	
				B22 0.47 – 0.70 Abrupt	Light clay, sandy	Subangular blocky, moderate, peds <30 mm, very firm	<1% calcium carbonate	10YR2/1 Black Nil mottles / bleaching	Humid, moderately well drained	Nil roots	0.60 / 6.5	0.50-0.60	
				B23 0.70 – 1.00 EOBH	Medium clay, sandy	Subangular blocky, moderate,	<10% calcium carbonate	10YR3/2 Very dark greyish brown	Humid, moderately well drained	Nil roots	0.90 / 6.5	0.80-0.90 0.90-1.00	

Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 6	Location (GDA94 ZONE 55): 7510427mE 7511265mN	Aust. Soil Class.: Black Dermosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 04/06/2019
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Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion Extensively cleared	Firm, cracking 2mm, Nil coarse fragments	A1 0.0 – 0.18 Abrupt	Sandy loam	Weak, sub- rounded peds 5-20 mm, firm	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
				B21 0.18 – 0.50 Abrupt	Sandy clay loam	Moderate, peds 30-40 mm, very firm	Nil inclusions or segregations	10YR2/1 Black Nil mottles / bleaching	Humid, well drained	Nil roots	0.30 / 6.5		
				B22 0.50 – 1.00 EOBH	Light clay, sandy	Subangular blocky, moderate, peds <40 mm, very firm	<5% calcium carbonate	10YR2/1 Black Nil mottles / bleaching	Humid, moderately well drained	Nil roots	0.60 / 6.5		

SITE 100-SCL

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Extensively disturbed for cropping	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
				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 16	Location (GDA94 ZONE 55): 641451mE 7509683mN	Aust. Soil Class.: Black Vertosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 03/06/2019
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Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion Extensively disturbed for cropping	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	0.10 / 6.5	No samples taken	Nil additional observations
				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 16	Location (GDA94 ZONE 55): 641663mE 7508746mN	Aust. Soil Class.: Black Vertosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 03/06/2019
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Landscape**Surface****Soil Profile**

Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion Extensively disturbed	Self-mulching, minor crust, cracking 2- 6+mm Nil coarse fragments	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
				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 16	Location (GDA94 ZONE 55): 641658mE 7508739mN	Aust. Soil Class.: Black Vertosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 03/06/2019
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Landscape**Surface****Soil Profile**

Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion Extensively disturbed for cropping	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
				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 16	Location (GDA94 ZONE 55): 641736mE 7508275mN	Aust. Soil Class.: Black Vertosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 04/06/2019
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Landscape**Surface****Soil Profile**

Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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 Nil erosion Extensively disturbed for cropping	Self-mulching, minor crust, cracking 2- 6+mm	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
				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 16	Location (GDA94 ZONE 55): 641732mE 7508275mN	Aust. Soil Class.: Black Vertosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 04/06/2019
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Landscape**Surface****Soil Profile**

Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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	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 17	Location (GDA94 ZONE 55): 644310mE 7508052mN	Aust. Soil Class.: Black Vertosol	Site Survey Type: Detailed - 50mm hand auger	Survey Date: 30/06/2018
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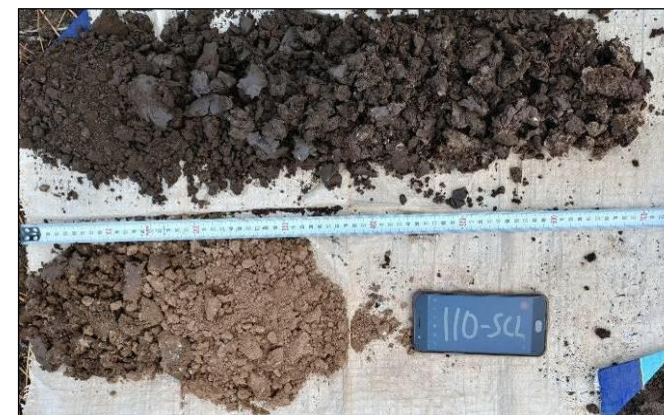
Landscape



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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, 0.0/0.0%	Cropping	Nil microrelief Cropping disturbance Nil erosion	Cracking 20- 40mm, fine surface mulch Nil coarse fragments	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	Nil additional observations
				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	0.20-0.30 0.50-0.60	
				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	0.70-0.80	
				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	0.90-1.00	

SITE 115-SCL

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



Surface



Soil Profile



Land use Landform Pattern, Element, Slope	Vegetation	Microrelief Disturbance Erosion	Surface condition, surface rock	Soil Profile Description									
				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
				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		