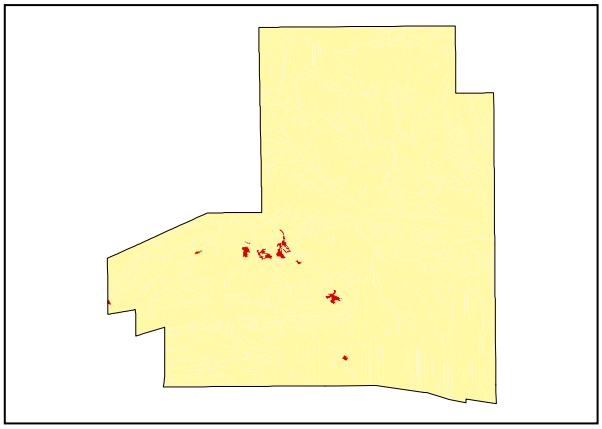
Plains

LAND UNIT 4.10

Broad Clay Flats

DESCRIPTION: Broad Clay flats of Needlewood and Cottonbush.
SITES: 047, **089**

Distribution of land unit.



Area = 1.54 km^2, 0.47% of mapped area.

LAND CAPABILITY:

ATTRIBUTES	
SLOPE (%)	1.0
RELIEF (m)	1.0
SOIL DEPTH (m)	>1.60
SURFACE CONDITION	Cryptogram.
DEPTH TO SUBSTRATE (m)	>1.60
REACTION TREND (pH)	7.0 to 9.5
OUTCROP (%)	-
RUNOFF	Very slow
PERMEABILITY	Very slowly permeable
DRAINAGE	Poorly drained
SALINITY (µs/cm)	35 to 2200

DEVELOPMENT RISKS	
EROSION	Severe
ROCK FALL	None
SHEET FLOODING	Severe
INUNDATION	Severe
SALINITY	Severe
ALKALINITY	Severe
ACIDITY	None

CAPABILITY CLASS					
Formed Roads	**Shallow excavations**	**Septic Disposal**	**Horticulture**	**Building Foundations**	**Landscaping**
Fair	Fair	Poor	Very Poor	Fair	Very Poor

Plains

TECHNICAL DETAILS — LAND UNIT 4.10

DESCRIPTION: Broad clay flats with Needlewood over Cottonbush.

GEOLOGY: Mostly an accumulation of Quaternary detrital material derived from a Palaeozoic and / or a Proterozoic source.

LANDFORM: This land unit is a playa - a large, shallow, level-floored closed depression, intermittently water filled, bounded as a rule by flats aggraded by sheet flow and channelled stream flow (*Mc Donald, R.C. et. al, 1990).* Water would enter the area as sheet flow carrying the finer fraction of soil, hence the clayey characteristics. Run-off from the area is into the nearby creek system. Drainage and permeability is poor and very slow respectively. High salinity, non-effervescence and high alkalinity would suggest a sodic soil type.
There is evidence of a very shallow, non-descript, and non-directional drainage system within the land unit.

SOIL: Example from **Site 089**
MGA. Coordinates: 7373516mN, 379246mE.

CLASSIFICATION: Red brown earth. Kandosol - KA, AA, AH,CD, A, H, L, O, X

SURFACE: Some areas of slightly lower relief have surface flake but the majority of the area has a cryptogram surface or is loose. Generally the surface soil is an incoherent mass of individual particles with occasional loose aggregates that separate when touched. There are the occasional (<1%) subangular 20-60mm coarse gravelly quartz fragments. Granitic subsurface fragments suggest a granite substrate.

DEPTH (m)	HORIZON	TEXTURE	pH	SALINITY (µs/cm)	OTHER DETAILS
0.00 - 0.10	A1	Sandy loam (SL)	7.0	35	Dark red (2.5YR3/6). 20% 2-6mm angular fine gravelly granite fragments. A pedal, single grained and a just coherent structure. Non effervescent.
0.10 - 0.20	A3	Sandy clay loam (SCL)	9.0	1136	Dark red (10R3/6). 20% 2-6mm angular fine gravelly granite fragments. A pedal, single grained and a strongly coherent structure. Non effervescent.
0.20 - 0.50	B2	Clay loam sandy (CLS)	9.5	2200	Dark red (10R3/6). 20% 2-6mm angular fine gravelly granite fragments. A pedal, massive coherent with an earth fabric. Non effervescent.
0.50 - 0.90	B2	Clay loam sandy (CLS)	9.5	1979	Dark red (10R3/6). 20% 2-6mm angular fine gravelly granite fragments. A pedal, massive coherent with an earthy fabric. Non effervescent.
0.90 - 1.30	B2	Clay loam sandy (CLS)	9.5	1945	Dark red (10R3/6). 20% 2-6mm angular fine gravelly granite fragments. Weak polyhedral peds, massive coherent structure with an earthy fabric. Non effervescent.
1.30 - 1.60	B2	Light clay (LC)	9.5	1985	Dark red (10R3/6). 20% 2-6mm angular fine gravelly granite fragments. Weak polyhedral peds massive coherent structure with an earthy fabric. Non effervescent.

VEGETATION: **Site 150** (Albrecht, D. & Pitts, B. 1999).

UPPER STRATUM - Usually absent	
Dominant species	
Other species	Needlewood
MID STRATUM - Isolated clump of shrubs	
Dominant species	Needlewood
Other species	Dead Finish, Desert Cassia, Mulga, Ironwood
LOWER STRATUM - Open sedgeland	
Dominant species	Cottonbush
Other species	Succulent Copper Burr, Curly Windmill Grass, Woolly Yellow-heads, Crown Fissure Weed, Goathead Burr, Woolly Copper Burr, Slender Glasswort, Red Spinach, Barley Mitchell Grass, Spreading Saltbush, Desert Bluegrass, Bogan Flea, Buffel Grass, Button Grass, Australian Carrot, Silky Bluegrass, Ruby Saltbush, Mallee Lovegrass, Knottybutt Neverfail, Harlequin Fuchsia-bush, Eight Day Grass, Harlequin Mistletoe, Satiny Bluebush, Three-wing Bluebush, Minnie Daisy, Lignum, Native Millet, White Paper Daisy, Grey Wrinklewort, Buck Bush, Grey Copper Burr, *Senna artemisioides subsp. alicia*, Silver Sida, Katoora, Curly-pod Wattle, Bunched Kerosene Grass, Feathertop Wiregrass, Pop Saltbush, Spreading Saltbush, Australian Bindweed, Cannon-ball Saltbush, Climbing Saltbush, *Eremophila sturtii,* Weeping Emu Bush, Caustic Weed, Veined Peppercress, Annual Yellow Top, Tall Saltbush, Slender Spurge, Silky Copper Burr, *Senna artemisioides nothosubsp. coriacea, Sporobolus blakei*, Dwarf Swainsona, Bindieye, Five-minute Grass.

(See appendix 3 for botanical names)