

A P P E N D I X I

TABLE OF FORMATIONS AND SOME OF THEIR CHARACTERISTICS, AMADEUS BASIN, N. T.

Age	Formation	Map Symbol	Lithology	Maximum Thickness in feet	Source rocks	Reservoir rocks	Cap Rocks	Aquifers	Remarks									
Quaternary	-	Q	Alluvium, aeolian sand, evaporites and travertine.	-														
Tertiary	-	Tc	Conglomerate	-														
Mesozoic	-	M	Sandstone and siltstone	20+														
? Permian	-	P	Sandstone and micaceous siltstone	60+														
? Pre-Permian Upper Palaeozoic	Ligertwood	Pzl	Conglomerate, conglomeratic sandstone and siltstone	60+														
? Lower Carboniferous	Pertnjara	Pzp	ANGULAR UNCONFORMITY	21,500		X	X		Impermeable in part									
			Continental sandstone, conglomerate and sandy shale															
? Ordovician	Mereenie	Pzm	UNCONFORMITY	3,216		X		X	Porosity not uncommon									
			Cross-bedded clean sandstone															
Ordovician	Larripinda	Ous	DISCONFORMITY	2,080	X	X	X		Fetid limestones									
			Siltstone and shale; limestone beds at base, sandstone beds at top; evaporites; coquinas with marine fossils															
			Stairway							Oms	Clean sandstone, siltstone and limestone with marine fossils	1,939		X!		X	Nodular sandstone with 20% phosphate	
Cambrian	Group	Pacoota	e/Op	3,450		X!		X	Sandstones locally silicified									
										Clean well-sorted sandstone, conglomeratic sandstone; glauconitic in places; Scolithid tubes common.								
										DISCONFORMITY								
Cambrian	Pertaorta	Goyder	Gug	2,400		X		X										
										Sandstone, siltstone, silty shale; thin limestone at base; marine fossils rare								
										Jay Creek	Gmj	Limestone, algal limestone, pellet limestone, silty shale; well-sorted sandstone at top.	3,500	X	X			Gas shows in Gm at Ammaroo, Georgina basin; Porous limestone members. Residual hydrocarbons in basal reefoid facies.
										Hugh River	Oh	Shale, siltstone, sandstone, limestone, algal lenses	3,473	X		X		Residual hydrocarbons; 3% porosity; up to 0.3 md. permeability; 7.5% saturation of effective pore space with non-gaseous hydrocarbons
? Cambrian or ? Upper Proterozoic	Cleland	P/Gc	Sandstone, kaolinitic; pebbly sandstone, partly silicified; possibly deltaic	3,490+					Possible equivalent of Pertaorta Group. Restricted to Western part of basin									
										Arumbera	P/Gla	Greywacke, well-sorted sandstone, local conglomerate, siltstone	4,000+				Residual hydrocarbons	
										Carnegie	Puc	Sandstone and siltstone; conglomerate at base	4,100+				Restricted to Western part of basin	
										Pertatataka	Pup	Silty shale, algal limestone members; thin clean sandstone	3,000	X		X		Porous dolomitic members
Upper Proterozoic	Areyonga	Pua	Soft arkosic greywacke, conglomerate, minor limestone; periglacial?	1,400		X		(X)										
										DISCONFORMITY								
										Pitter Springs	Pub	Crystalline dolomite, dolomitic limestone, algal limestone, gypsum, salt?: Stromatolites	5,000	X	X	X	X	Residual hydrocarbons; up to 10% porosity and up to 0.3 md. permeability; up to 66% saturation of effective pore space with non-gaseous hydrocarbons Fracture porosity
Archaean	Heavitree	Puh	Sandstone, quartzitic sandstone; minor silty shale	1,100		(X)			Permeable where not silicified									
										ANGULAR UNCONFORMITY								
Arunta	Aa	Metamorphic - igneous complex																