

MARRAT FORMATION REFERENCE SECTION

Local Stratigraphy			Lithology and Diagnostic Fossils R.W. Powers and A.A. McClure (1962)	
Middle Jurassic	Bajocian	Dhruma		GYPSUM: Varicolored thinly bedded gypsum
Lower Jurassic	Toarcian	Marrat Formation (102.5 m)	Upper (24.2 m)	Unit (4) APHANITIC AND CALCARENITIC LIMESTONE: Light-brown, moderately porous chalky aphanitic limestone; thin interbeds of brown chalky gastropod calcarenitic limestone in lower third unit. Thin shale beds in basal part. Major cliff former <i>Nejdia bramkampi</i> <i>Hildaites sanderi</i>
			Middle (41.8 m)	Unit (3) SHALE, SILTSTONE, AND SANDSTONE: Dominantly red, rarely green and yellow, shale and siltstone; poorly exposed. Prominent ledge former in upper part reddish-brown moderately porous fine-grained crossbedded calcareous sandstone. Thin beds of aphanitic limestone and gastropod calcarenitic limestone near top <i>Bouleiceras nitescens</i> , <i>B. elegans</i> , <i>B. arabicum</i> , <i>B. marraticum</i> , <i>Protogrammoceras madagascariense</i> , <i>Pecten ambongoensis</i>
			Lower (36.5 m)	Unit (2) APHANITIC AND CALCARENITIC LIMESTONE AND DOLOMITE: Lower half; mostly brown medium-grained crystalline dolomite; some interbedded golden-brown partly dolomitized aphanitic limestone. Upper half: light- to red brown, porous, commonly chalky, interbedded aphanitic and calcarenitic limestone; lime mud pellets and molluscan debris most common grains in calcarenitic limestone (15.0 m)
Upper Triassic	Rhaetian	Minjur		Unit (1) POORLY EXPOSED: Scarce outcrops indicate complexly inter-bedded red and green sandstone, siltstone and shale thin beds of aphanitic, calcarenitic limestone in middle and near base of section. Capping unit reddish-brown, medium- to coarse-grained angular calcareous sandstone. (21.5 m)
				SANDSTONE: Reddish-brown and white medium- to coarse-grained cross-bedded sandstone
Location:				
		Unit 1	Unit 2, 3, 4	
		24°13'11", 46°05'53"	24°13'15", 46°06'20"	
		24°13'06", 46°05'58"	24°13'20", 46°06'41"	

Figure 3: Marrat Formation in Khashm adh Dhibi reference section as measured and described by R.W. Powers and H.A. McClure and published in Powers et al. (1966).